

THE ABC OF THE
FEDERAL RESERVE SYSTEM

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Eleventh Edition ∞ Revised

THE ABC OF THE FEDERAL RESERVE SYSTEM

*Why the Federal Reserve System was
called into being, the main features
of its organization, and how it works*

BY EDWIN WALTER KEMMERER, PH.D., D.Sc., LL.D.
Walker Professor of International Finance
in Princeton University

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PREFACE

WITH this volume *The A B C of the Federal Reserve System* appears in its eleventh edition. Of the previous editions over sixty-four thousand copies have been sold.

The book was first published in 1918, when the federal reserve system was less than four years old and while the United States was in the throes of the World War. It was written in response to a suggestion made to the author by the late Henry B. Thompson, a director of the Federal Reserve Bank of Philadelphia, "to write a brief A B C of the newly established federal reserve system that would enable the ordinary American citizen not having technical economic training to understand why the federal reserve banks were established and what services they were performing." Mr. Thompson said that in a democracy at all times, and particularly in time of war, it was exceedingly important that the electorate should have at least an elementary understanding of the nation's currency and banking system and that he believed it to be the author's patriotic duty as a citizen to write a book that would serve this purpose.

During the quarter century of its history the federal reserve system has undergone at the hands

of Congress several fundamental changes, and numerous minor changes. On this statutory foundation there has been built up an enormous superstructure of legal interpretations and administrative regulations and practices. From the beginning the system has been a growing organism, adapting itself to an environment that has been undergoing frequent changes, both economic and political. Under such conditions any description of the federal reserve system has quickly become outdated. This explains why this book is now appearing in its eleventh revised edition and why the text of this edition is three times as long as that of the first edition and 69 per cent longer than that of the ninth edition published only six years ago.

In the preparation of the ninth and tenth editions of this book the author received invaluable aid from Professor James G. Smith and Dr. Courtney H. Pitt, and in the preparation of the eleventh edition he received like aid from Professor C. R. Whittlesey, all of which he wishes gratefully to acknowledge

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CHAPTER I

PURPOSE AND PLAN OF BOOK

THIS book is an attempt to tell in non-technical language the chief reasons why the federal reserve system was called into being, the main features of its organization, and how it works. Although the Federal Reserve Act of 1913 is one of the most important pieces of financial legislation enacted in modern times, and although it has been in operation for a quarter of a century, many of our people are still unfamiliar with its fundamental principles. It is looked upon by the majority of people as too technical and complicated to be understood except by bankers and economists. As a consequence there has been a lack of public interest in the workings of the system and in the important legislative and administrative modifications which the system has undergone since its establishment. This is not surprising when one considers the complex character of much of the federal reserve machinery and the technical language in which this machinery is usually described. In a democracy, however, widespread ignorance, among the voters, of the country's financial system is fraught with danger.

By the beginning of the second decade of this century America's leading manufacturing, trans-

portation and commercial concerns had attained heights of economic efficiency, which made them the envy of foreigners. None, however, envied us our banking system. None followed it except soon regretfully to turn back. This was true, despite the fact that our old American banking system had many substantial merits. It was, for example, adaptable to the local needs of widely varying communities, and it had developed the check and clearing system to a degree of perfection found in few if any other countries. Along with these meritorious features, however, it contained a number of serious defects. The chief of these may be grouped conveniently under four heads: I. Decentralization. II. Inelasticity of credit. III. Cumbersome exchange and transfer system. IV. Defective organization as regards relationship with the Federal Treasury. In the succeeding four chapters these four groups of defects will be considered, and in the nine chapters following will be discussed the respective remedies provided by the federal reserve system as well as the development of the system itself

CHAPTER II

DECENTRALIZATION OF AMERICAN BANKING PRIOR TO FEDERAL RESERVE SYSTEM

IN 1912 the United States had many times more commercial banks than any other country in the world, and these banks were much smaller, on the average, than those of any other important country. Official figures at that time placed the number of independent banking establishments of all kinds in the United States at approximately 30,000, and of this number something like 28,000 were banks whose business was wholly or partly of a commercial character. These commercial banks were owned for the most part by the residents of the communities in which they were situated, and the business of most of them was chiefly local in character. The great majority of "national banks" were national in name only. Except for the rather loose association of the banks in the clearing houses of our principal cities, and except for a growing community of interest, most of these banks were independent units, each working for itself. There was little team work. In times of threatened panic the different parts of the system worked at cross purposes. They were without effective leadership at those times when prompt cooperation under national leadership was urgently needed.

Reserves Widely Scattered

The most serious feature of this decentralization was the wide scattering of reserves. Thirty thousand different banks meant 30,000 cash reserves, and these reserves for the commercial banks were more than the mere "till money" which the "cash balances" of most foreign banks represent. They were actual reserves, substantial in amount, upon which the banks placed their prime dependence in times of emergency. It is true that most banks had so-called "deposited reserves," namely, funds on deposit in other banks, which they were allowed to count as part of their "legal reserves", and they had so-called "secondary reserves," namely, funds invested in securities and call loans, which were supposed to be quick assets that could be liquidated at once in time of need. Strictly speaking, however, neither of these "reserves" was a reserve at all. The deposited reserve was after all merely a deposit in another bank, which the depositary bank loaned out—frequently at call on the stock exchange—and against which it held its own reserve, a reserve which in turn was often further attenuated by being placed on deposit in a third bank, there likewise to be loaned out on stock exchange collateral. In times of emergency, therefore, the "deposited reserve" could be realized

upon only to the extent that call loans could successfully be called, and this meant to the extent that stock exchange securities could be sold. In times of threatened panic, however, stocks and bonds cannot be sold on any extensive scale except at great sacrifices and at the risk of financial collapse. Experience had shown that securities were not sold to any large extent by banks at such times. The losses would have been too great. The result was that in times of serious danger the banks of the country were forced to rely chiefly upon their own cash reserves, which, as a consequence, had to be maintained at a high level—higher than in most other advanced countries. This situation gave the vault reserve in American commercial banks an importance not found in the commercial banks of Europe. European joint-stock banks normally carry little cash in vault; they place their reliance for emergency funds directly or indirectly upon the central banks. In America bank reserves were so scattered and so jealously guarded that in times of threatened panic they were comparatively ineffective in staying the storm. The situation was analogous to what would happen today if, after drilling our American army to a high point of fighting efficiency, we should scatter the men in small units all over the United States to protect the country from a threatened invasion. Each com-

munity would jealously retain its own squad of soldiers, but if the invader should come, the efficiency of our well-drilled soldiers would be practically nil. The point of the illustration will be clear to everyone who can remember the mad scramble for reserve money on the part of banks throughout the country at the time of the panic of 1907. Our supply of reserve money was large. In fact we had at that time in the United States the largest supply of monetary gold in the world. It was ineffective, however, because it was so widely scattered.

Reserves Immobile

Obviously a country's reserve money must be concentrated mainly in one reserve or, at most, in a few large reserves, if it is to be effective. It must be marshalled in armies, not scattered in small squads. But these armies must be mobile so that they can be quickly moved, singly or in combinations, to places of threatened attack. An army's mobility is a big factor in its efficiency—a truth which the great mobility of the armies of the Central Powers in the World War emphasized. Our American bank reserves were not only scattered, they were also immobile. There was no effective way of quickly gathering them together and massing them at the points of financial danger.

These then were the three most serious phases of our banking decentralization: (1) Absence of a responsible national conservator of the money market, like the Bank of France or the Bank of England. (2) Scattered bank reserves (3) Immobile bank reserves.

CHAPTER III

INELASTICITY OF AMERICAN BANK CREDIT PRIOR TO FEDERAL RESERVE SYSTEM

THE second group of defects of the old banking system—defects closely related to those of decentralization—were those of credit inelasticity. A large part of the country's current business in normal times is carried on by means of funds borrowed from commercial banks. These borrowed funds are left on deposit with the banks, and the deposits are circulated by means of checks, the debits and credits of individual accounts being offset in such a way that the total volume of commercial deposits in the country do not normally vary greatly in short periods of time.

Extent to Which Bank Credit Is Used as a Medium of Exchange

An approximate idea of the amount of business normally transacted through the instrumentality of this so-called deposit currency may be obtained from the following figures. The amount of bank deposits transferable on demand by check held in the commercial banks of the United States in the pre-depression year 1928 was probably in the neighborhood of \$22 billion. Exact figures are not available. Five years previously, Dr. W. Randolph

Burgess concluded on the basis of a rather extended study that "a reasonable estimate would place the velocity of circulation for the country as a whole at a rate somewhere between 25 and 35 times a year, and probably under rather than over 30."¹ This means that, on the average, at that time, for every dollar kept on deposit throughout the year by individuals, corporations and governmental bodies, in check accounts of commercial banks, something like thirty dollars of check transactions were made. The total volume of business effected by checks during the year 1928 for the entire country was therefore about \$660 billion.

But this was not all the transactions effected by media of exchange created by our banks. Investigations made for the National Monetary Commission in 1909 by David Kinley showed that between 80 and 85 per cent of the country's total business was transacted by means of checks. This percentage doubtless increased substantially by 1928 as a result of the development of the federal reserve system and other improvements in our banking facilities. If we assume that by 1928 the proportion of our total business done by means of checks had risen to 90 per cent, we arrive at \$73 billion (namely 10/90 of the amount of business done by checks) as the amount performed by means of money inclusive

¹ Burgess, W. Randolph, "Velocity of Bank Deposits," *Journ Amer Statistical Assoc*, June 1923, pp 727-40.

of bank notes. Approximately 48 per cent of the money in circulation in 1928 consisted of federal reserve notes and national bank notes—namely, bank money. Adding to the \$660 billion of business transacted by means of deposit currency during the year 48 per cent of the \$73 billion business estimated to have been transacted by money, we have \$695 billion per year, or nearly \$2 billion a day, as an approximate estimate of the total amount of business transacted in 1928 by means of circulating bank credit—deposits and bank notes.

It may be noted here, parenthetically, that the total amount of money in circulation in 1928 was approximately \$4.8 billion (inclusive of federal reserve notes and national bank notes). Hence, if this amount of hand-to-hand currency performed directly \$73 billion of business during the year, the average rate of monetary turnover in the United States in 1928 was approximately 15. This is just half the estimated rate for bank demand deposits.

The amount of money and of deposit currency which a country needs to carry on its business, at a price level in equilibrium with the price levels of other countries, depends primarily upon the amount of business or of money work to be done. In years of active business a larger supply of circulating media is needed than in years of business depression. Furthermore, in a country like the

United States, in which agriculture is a particularly important industry, there are pronounced seasonal fluctuations in the amount of business to be done, and consequently in the demand for cash and for deposit currency. One important postulate of a good banking system is its capacity to adjust the supply of deposit currency and of bank notes to variations in trade demands, increasing it, for example, at the time of the heavy crop-moving demands in the fall, and reducing it at the time of inactive business, which normally sets in shortly after the opening of the year. Capacity to contract the circulating media when business demands decline is as important as capacity to expand them when these demands increase.

Under the old régime our American bank credit, both note and deposit, was peculiarly inelastic, although the seasonal character of much of the country's business is such as to make credit elasticity a desideratum of unusual importance in the United States.

Bank-note Inelasticity

Our national bank notes, which should have furnished the elastic element in the country's hand-to-hand money, were notoriously inelastic. National banks were authorized to issue these notes by depositing, with the government, United States

bonds equal in par value to the notes issued.¹ The banks were supposed to realize a "double profit" on the bank notes, namely, interest on the bonds, and interest on the notes when they were loaned out as money. After 1900 the bonds used, however, were mostly 2 per cent bonds of 1930.² The issuance of bank notes involved a number of incidental expenses, including a semi-annual tax of one-fourth of 1 per cent upon the amount of notes issued, and the maintenance with the government of a 5 per cent redemption fund. Furthermore, not more than \$100 in notes could be issued against \$100 par value of bonds, regardless of how high a premium the bonds bore in the market. Since these issues of bonds sold substantially above par during the greater part of their life, the banks usually realized

¹ If the market value were below the par value, however, additional bonds were to be deposited so as to make the market value at least equal to the value of the notes issued. In recent years the market value of these bonds, down to the time of their retirement in 1935, was usually above the par value.

² The 2 per cent Consols of 1930 were issued under authority of the Act approved March 14, 1900. They were dated April 1, 1900, and the law provided that they should be payable at the pleasure of the United States after thirty years from the date of their issue. The bonds were given accordingly an indeterminate maturity after April 1, 1930. The Panama 2 per cent bonds likewise were subject to call and both series had fixed maturities, one in 1936 and the other in 1938. On June 30, 1930, a total of \$666,219,750 of an aggregate total of \$674,625,630 of these bonds outstanding, was on deposit with the Treasury of the United States as security for the issue of circulating notes by national banks. *Annual Report of the Secretary of the Treasury of the United States for 1930*, pp 25-6.

considerably less than $1\frac{1}{2}$ per cent net interest on them.

Obviously the higher the premium paid on the bonds, other things equal, the lower the net interest yield; and the lower the premium, the higher the yield. The result was a tendency for the banks to buy bonds and increase their bank-note circulation when the price of bonds declined and to decrease their circulation when the price rose. Thus, the expansion and contraction of the bank-note circulation was not, as it should have been, in response to variations in trade demands, but in response to variations in the price of the government debt. This often gave an inverse elasticity, since the price of government bonds often declined at times when business was slack and the currency was already redundant, and often rose at times when business was active and an increase in the bank-note circulation was desirable. In other words, the bank-note circulation frequently declined at just the time when business needs demanded an increase, and increased when the business situation called for a decline. The character of these fluctuations will be seen from Chart I ¹

From season to season the bank-note circulation was unresponsive to varying trade demands. There was considerable delay and red-tape involved in

¹ Figures plotted on the chart do not include the issues of Aldrich-Vreeland emergency notes. See note 2, p. 15

CIRCULATION

MIL.

\$

800

700

600

500

400

300

200

100

1880

1882

1884

1886

1888

1890

1892

1894

1896

1898

1900

1902

1904

1906

1908

1910

1912

1914

PRICE OF U.S. AS OF 1907

PRICE OF U.S. AS OF 1907

PRICE OF U.S. AS OF 1907

NATIONAL BANK NOTE CIRCULATION

PRICE OF U.S. AS OF 1930

CHART I

National Bank-note Circulation and Prices of United States Bonds, Dates of Comptroller's Calls 1880-1914

obtaining the necessary bonds, depositing them at Washington and obtaining bank notes for circulation; and these obstacles, together with the expenses involved and the restrictions upon the subsequent retirement of notes once issued,¹ made it impracticable for banks to meet temporary needs for additional currency, like those of the crop-moving period, by issuing additional notes. About all that can be said in favor of this seasonal elasticity of the national bank notes is that banks planning to increase permanently their bank-note circulation tended to make the increase in the fall when the demands for currency were normally largest. In the matter of seasonal elasticity our national bank-note circulation showed up very unfavorably in comparison with the bank-note circulation of Canada, which, under the system of branch banks and an asset bank-note currency, was highly responsive to seasonal variations in currency needs. The contrast will be made clear by Chart II showing the variations in the monthly bank-note circulation of the two countries prior to November 1914, the month when the federal reserve banks were opened.²

¹ Down to May 30, 1908, the law limited the amount of national bank notes that could be withdrawn in any one calendar month to \$3 million. On that date the law raised the limit to \$9 million.

² The figures plotted on the chart do not include the circulation of the so-called Aldrich-Vreeland emergency notes, which were first issued in August 1914, reached their maximum in October, and were all retired by

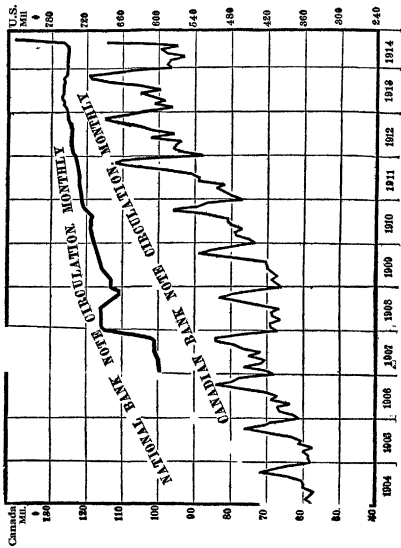


CHART II

Elasticity of Bank-note Circulation in United States and Canada 1904-1914

In times of crisis national bank notes could not be depended upon to provide the additional currency needed. Government bonds were usually difficult to obtain on favorable terms at such times, and the machinery for taking out new circulation worked too slowly. Some progress was made in the direction of improving the system in this regard during the latter years of the old régime, and, as a result of strong appeals to the banks and of active assistance from the Treasury Department, there was some helpful increase in the national bank-note circulation at the time of the panic of 1907 and the crisis of 1914. At best, however, the bond-secured notes were a weak reed to rest upon in time of crisis.

Inelasticity of Deposit Credit

Our loan and deposit credit was likewise deficient in the quality of elasticity. Rigid legal minima for bank reserves set up an obstacle to loan and deposit expansion at times of increasing business activity. Banks which were "loaned up" and could not make further advances to regular customers of good standing were prevented from loaning their credit to these customers by accepting bills, which the customers might draw upon them, as is the common custom in Europe, because our courts had

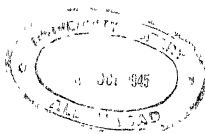
the following July Legal authority to issue such emergency notes expired by limitation June 30, 1915 Federal Reserve Act, section 27

ruled that bank acceptances were illegal. The rediscount business among our banks was almost negligible, and most of that which existed was done on the quiet. Rediscounting was frowned upon by bankers and business men, and there was no central institution like the central banks of continental Europe, whose business it was to rediscount the paper of other banks in times of need. Our American business paper was largely local in character and we had comparatively little that could be sold in distant markets, either at home or abroad. In other words, rigidity rather than elasticity was a characteristic feature of our American deposit credit.

Evil Results of Credit Inelasticity

To this defect of credit inelasticity, coupled with that of decentralization of bank reserves, were to be attributed largely the frequent and wide fluctuations in the interest rates on call and short-time loans, for which American money markets were notorious, and the alternation of periods of excessive speculation stimulated by redundancy of currency and credit with periods of stringency and liquidation brought on by scarcity. For this rigidity of our credit system the business men and the farmers paid the price of higher interest rates. The farmer suffered through the necessity of selling his staple crops largely in the fall when a tight money

market was depressing prices, and of buying his supplies largely in the early spring when easy money conditions tended to make prices abnormally high. The banker was compelled to keep large reserves and to tie up an excessive amount of his commercial deposits in capital investments, such as the purchase of bonds and the making of call loans on stock exchange collateral. Upon all classes in the community, therefore, an uncertain and unstable money market, which was wont to collapse frequently in panics, imposed a burden of financial anxiety.



CHAPTER IV

DEFECTIVE EXCHANGE AND TRANSFER SYSTEM

A THIRD group of defects in our old banking system consisted in certain cumbersome features—unnecessary wheels and cogs as it were—in our domestic and foreign exchange mechanism. These features greatly interfered with the efficient operation of the machine and at the same time added to the expense. This subject is a large and complicated one and can only be touched upon here. It may be divided into two parts, that relating to domestic exchange, and that relating to foreign exchange.

Domestic Exchange Difficulties

Of the hundreds of billions of dollars in checks drawn every year in the United States, a very large proportion are for local payments, and, being settled promptly through local clearing houses or directly between the banks concerned, offer no difficulties. Our American clearing house machinery has long been a marvel of perfection for the settlement of local checks. In addition to the checks drawn for purely local payments, checks whose span of life is but one day and which are born, live and die within the narrow limits of one town, there are, however, millions of checks drawn

daily for out-of-town payments, checks whose span of life often covers many days and which in the range and speed of their movements excel the proverbial American tourist party in Europe. The supply of these checks that was continually in transit, running into the hundreds of millions of dollars, was known among bankers as the "float." The problem of efficiently and cheaply handling this float and of equitably apportioning the expenses involved had been for years a perplexing one. Some clearing houses, as for example that of New York, imposed specified charges for the collection of checks on points beyond a certain radius from New York City. Other clearing houses imposed no charges. The Boston clearing house developed a system for the pairing of checks throughout New England, thereby eliminating all collection charges on items drawn on banks entering the system. Similar devices were adopted in a number of other sections of the country, notably in the Middle West. Some cities, Albany for example, became known as free cities and others were notorious for their high collection charges. Many banks imposed exchange charges—some high and some low—for the collection of out-of-town checks received over their counters, and some made a charge for the collection of checks drawn upon themselves when presented from out-of-town sources. These practices led among other evils

to the practice of "routing checks," which meant that checks in the process of collection would often be sent by roundabout and devious routes in order to avoid or reduce collection charges. In this way the length of time checks were in transit was increased and the economic cost to the community for the collection of checks was made greater.

One serious phase of the practice of routing checks was the manner in which it padded legal reserves. Competition among large-city banks for the accounts of country banks led the city banks to give an immediate credit to the country banks for out-of-town checks. These checks frequently took the city bank several days, sometimes a week or more, to collect. The country bank counted as legal reserve out-of-town checks sent to the reserve city bank for collection as soon as they were mailed. The reserve city bank in turn would send some of these same checks to the central reserve city bank and count them as reserve money as soon as they were put in the mail. In this way one check *in transit* frequently counted as legal reserve for both a country bank and a reserve city bank. Occasionally such a check, after performing a yeoman service as legal reserve money for two banks for several days, would be marked "no funds" and returned as worthless.

Another defect of the domestic exchange system was the expense and trouble, for which it was

largely responsible, of requiring heavy shipments of currency back and forth over the country. As previously noted, American money markets are subject to pronounced seasonal swings. At one season of the year the demand for bank funds is particularly heavy in the cotton belt of the South; at another time in the great cereal-producing sections of the West and Middle West; and at other seasons in the industrial and financial centers of the East. The area of relatively heavy demand often shifts from one section to another within a very brief period of time. Under our old banking system these shifts resulted in large shipments of currency—shipments amounting in the course of a year to hundreds of millions of dollars—and frequently a shipment would hardly be received and unpacked before a shift in the monetary demand would require the money to be sent to another section or perhaps to be returned to the place whence it came. All this involved expense, including packing, shipping, insurance, and interest items.

Foreign Exchange Difficulties

A second phase of the exchange difficulties under the old banking system was that relating to the foreign exchanges.

Our foreign trade was financed largely through London, even those parts of the trade which were with the Orient and South America. London

was the world's financial center and it was but natural that we should have utilized to a substantial extent her unrivalled facilities for financing overseas trade. The trouble was not that we utilized them, but that we utilized them too much and were unduly dependent upon them. This involved several difficulties, only two of which need be mentioned here. In the first place, payments through London gave rise to an additional foreign exchange operation, which normally added to both the expense and the risk of financing a shipment of goods. In the second place, the fact that invoices, bills of lading and other documents passed through the hands of foreign banks gave to our foreign competitors "inside" information concerning our foreign business—information that was sometimes used to their advantage in competition with our own citizens.

We now come to the fourth and last of the old banking system's defects, which were outlined at the beginning of this book. That was a defect growing out of the relation of our banking system to the Federal Treasury.

CHAPTER V

DEFECTIVE BANKING MACHINERY FOR FEDERAL GOVERNMENT

THE general funds of the Treasury were kept in part in the country's nine sub-treasuries, which existed at that time, and in part in those national banks which qualified as depositaries of government funds. There were 1,584 such national bank depositaries at the close of the fiscal year 1914. The apportionment of the funds between the sub-treasuries and the banks on the one hand, and the apportionment among the various depositary banks on the other hand, were entrusted to the Secretary of the Treasury. The amount of treasury funds to be thus apportioned varied widely from year to year and from season to season.

In a number of respects this system worked badly. Briefly summarized, the defects were as follows. (1) It led to the continual hoarding in treasury vaults of large sums of money, involving substantial administrative expenses and a heavy loss of interest. (2) At certain seasons of the year the government's receipts greatly exceeded its disbursements, as for example at the times when tax payments were heaviest, while at other seasons, as for example when pension money or interest on the public debt was being paid, the disbursements

exceeded the receipts. In the former case the money market was disturbed by the government's suddenly withdrawing large sums from circulation and thereby contracting the currency. In the latter case it was disturbed by the sudden pumping into circulation of large sums of money. These operations, when on any substantial scale, tended to affect the interest rates on call loans and the prices of speculative securities. The task imposed upon the Secretary of the Treasury, therefore, of apportioning these large government balances among the banks and the sub-treasuries was a difficult one and one which placed too great power and responsibility over the money market in the hands of a government official. It also led to criticism and jealousy among depositary banks. (3) The system caused depositary banks to rely unduly upon the Secretary of the Treasury for aid in the form of increased government deposits in times of financial pressure, instead of depending upon themselves and keeping "their houses in order" so as to be ready for emergencies. "The grandfatherly attitude of the Secretary of the Treasury toward the banks" in the matter of government deposits was an expression frequently heard.

The four chief defects of our American banking system, as it existed prior to the enactment of the federal reserve law, have now been briefly described. They were decentralization, inelasticity of credit,

cumbersome transfer system, and defective government depositary system. To remedy these defects the federal reserve system was created by the Federal Reserve Act of December 23, 1913, and the federal reserve banks opened their doors for business November 16, 1914. Since that date the system has developed rapidly. It is not our task at this point to trace this interesting development, but rather to answer briefly the question: How did the federal reserve system remedy the defects of the old banking system? Let us consider the remedy in its relation to the four general defects in the order in which they have been discussed.

CHAPTER VI

HOW THE FEDERAL RESERVE SYSTEM REMEDIED THE OLD EVIL OF THE DECENTRALIZATION OF AMERICAN BANKING

THE Federal Reserve Act did not destroy our American system of many independent banks. The law continued these thousands of independent banks with all their essential functions and was designed to federate them into a unified system, democratic in its organization and nationwide in its field of operation, a system dedicated to public service.

Federal Reserve Districts

There are twelve federal reserve banks, each of which operates in one of the federal reserve districts into which the country is divided. In determining the boundaries of these districts the authorities were required to have "regard to the convenience and customary course of business," to make each district large enough to provide the minimum capital of \$4 million required by law, and to make none so large as to dominate the others, thereby endangering the federal principle which the law sought to establish. A map showing the boundaries of the twelve federal reserve districts and of each of the twenty-five branch districts, and the

location in each district of the federal reserve city, namely, the city in which the main office of the federal reserve bank is situated, and of each federal reserve branch bank city, is given on the following page.

The fact that the number of banks and the amount of banking capital in different sections of the country vary so widely explains the great disparities in the geographic sizes of the federal reserve districts

Membership in Federal Reserve System

All national banks are required to be members of the system, and state banks and trust companies (which conform to certain standards as to size and character of business) are encouraged to join.¹ Comparatively few state institutions joined during the first two years the system was in operation, but the liberal policies of the federal reserve authorities, together with later amendments to the law and a feeling during the War period that it was the patriotic duty of state institutions to join the system in such a time of national emergency, made the state institutions more favorably disposed toward the system. By the end of June 1922, 1,648

¹ The Banking Act of 1933 provided for the admission of mutual savings banks to the federal reserve system. It also permitted Morris Plan banks and other incorporated banking institutions engaged in similar business to join. *Infra*, pp. 199-200.

FEDERAL RESERVE DISTRICTS

LEGEND:

- BOUNDARIES OF FEDERAL RESERVE DISTRICTS
- BOUNDARIES OF FEDERAL RESERVE BRANCH TERRITORIES
- FEDERAL RESERVE BANK CITIES
- FEDERAL RESERVE BRANCH CITIES
- FEDERAL RESERVE BANK AGENCY

DISTRICTS AND KEY CITIES:

- 1:** BOSTON (MA)
- 2:** NEW YORK (NY)
- 3:** PHILADELPHIA (PA)
- 4:** CLEVELAND (OH)
- 5:** RICHMOND (VA)
- 6:** ATLANTA (GA)
- 7:** CHICAGO (IL)
- 8:** ST. LOUIS (MO)
- 9:** MINNEAPOLIS (MN)
- 10:** KANSAS CITY (MO)
- 11:** DALLAS (TX)
- 12:** SAN FRANCISCO (CA)

CHART III

state institutions were members. From that time to June 30, 1933, the number declined to 709 and then advanced slowly to 1,085 on March 7, 1938. The state member banks on March 31, 1938, were operating 991 branches. The number of non-member banks (exclusive of mutual savings banks) declined with few slight interruptions from 19,636 in June 1922, to 8,450 on March 7, 1938. At the end of June 1922, there were 29,528 banks in the country (exclusive of mutual savings banks) of which 8,244 were national banks and therefore all members of the federal reserve system and 21,284 were state banks. By March 1938, after the holocaust of bank failures that occurred during the depression beginning in 1929, the number of national banks had declined to 5,250 or by 36 per cent in about sixteen years, the number of state banks (exclusive of mutual savings banks) had declined to 9,535 or by 55 per cent, and the number of state member banks by 34 per cent. In 1922 approximately 8 per cent of the state banks belonged to the federal reserve system and constituted 16.7 per cent of all banks in the system, while in 1938 about 11 per cent of the state banks were member banks and constituted nearly 17 per cent of the total membership. On the whole it is the larger state institutions rather than the smaller ones that belong to the federal reserve system. On March 7, 1938, for example, the average amount of deposits (other than

interbank deposits) of the state member banks was approximately two and a half times as large as that for the national banks.¹ Approximately 43 per cent of the commercial banks in the United States belonged to the system in 1938. On June 30, 1938, these member banks possessed resources equivalent to about 87 per cent of the total banking resources of all operating insured commercial banks of the country.

In the recent legislation for the government insurance of bank deposits, there is a provision that no state commercial bank having average deposits of \$1 million or more shall have the benefit of the government's deposit insurance after July 1, 1942, unless it shall be a member of the federal reserve system.² This provision is intended to bring heavy pressure on all non-member commercial banks of any considerable size to join the system.

Member banks are required to subscribe to the capital stock of the federal reserve bank in their district to an amount equal to 6 per cent of the member bank's capital and surplus.³ Only one-half of this subscription has so far been called, giving the federal reserve banks a paid-in capital of

¹ On the general subject of membership of state banks in the federal reserve system, consult Tippetts, Charles S., *State Banks and the Federal Reserve System*

² Federal Reserve Act, section 12b, paragraph y

³ In the case of mutual savings banks, the basis of subscription is six-tenths of 1 per cent of total deposit liabilities.

\$134 million in the autumn of 1938, but the other half may be called at any time by the federal reserve authorities.

The Federal Reserve Act, as originally passed, provided that after the 6 per cent cumulative dividend on the stock of the federal reserve banks had been paid, the balance of the net earnings for each year should be paid to the United States as a franchise tax, except that one-half such earnings should be paid into a surplus fund until it should amount to 40 per cent of the paid-in capital of the bank. By the Act of March 3, 1919, this distribution of the earnings above the amount required for the 6 per cent cumulative dividend was required to be paid to surplus until the surplus should amount to 100 per cent of the subscribed capital stock of such bank. After this 100 per cent surplus had been attained, 10 per cent of these earnings should go to surplus and 90 per cent to the government as a franchise tax. Fourteen years later, an amendment contained in the Banking Act of 1933 provided that after the 6 per cent cumulative dividend claims had been met, the entire balance of the net earnings should be paid indefinitely to surplus. From the beginning the law has provided that: "Should a federal reserve bank be dissolved or go into liquidation, any surplus remaining, after the payment of all debts, dividend requirements . . . and the par value of the stock,

shall be paid to and become the property of the United States. . . .”

The Federal Deposit Insurance Law of June 16, 1933, required every federal reserve bank to subscribe to shares of stock in the Federal Deposit Insurance Corporation to the extent of one-half of the bank's surplus as of January 1, 1933, and called for an immediate payment of one-half of this subscription.

Up to the close of the year 1937, about one-fourth of the aggregate net earnings of the reserve banks since their organization was paid to the government as a franchise tax, a little more than one-fourth was paid in dividends to member banks, nearly one-fourth, under act of Congress, was contributed to the capital of the Federal Deposit Insurance Corporation, and a fourth remained in the surplus accounts of the reserve banks.

Provisions for the establishment of the federal reserve branch banks are contained in the Federal Reserve Act, section 3. There are twenty-five branches and two agencies. During the year 1937 they handled 288 million checks aggregating \$64 billion and counted over eleven hundred million pieces of currency and coin amounting to approximately \$2,463 million ¹

¹ *Annual Report of the Board of Governors of the Federal Reserve System for 1937*, pp. 66-7

*Democracy of Federal Reserve Banks' Plan of
Organization*

There are two noteworthy features of a federal reserve bank's plan of organization. They are first, its democracy, and second, its recognition of the quasi-public nature of the banking business through its grant to the public of participation in the bank's management.

The administrative control of a federal reserve bank is democratic. "One bank, one vote" is the rule. Furthermore, in order to prevent the large banks from dominating the small ones by reason of their greater prestige and to assure the small banks of representation on the board of directors, there is a device by which all the member banks are divided according to their capital into three groups, which, reminiscent of the three bears in the Goldilocks story, may be called big banks, little banks, and middle-sized banks. Each of the groups was originally required to contain approximately the same number of banks, but by the amendment of September 26, 1918, this requirement was discontinued. At present the Board of Governors has authority to determine the number of banks which shall constitute each group, being merely subject to the requirement that "Each group shall consist as nearly as may be of banks of similar capitalization." The largest bank in the

group of little banks is therefore usually smaller than the smallest bank in the group of middle-sized banks, and the largest one in the group of middle-sized banks is usually smaller than the smallest in the group of big banks. In the autumn of 1934 a classification of member banks for the twelve districts, when taken by totals for all districts, placed 563 banks or 8.7 per cent of the total number of member banks at that time (i.e., 6,443 banks) in group I, the large-bank group; 2,004 banks or 31.1 per cent of the total number in group II, the middle-sized-bank group, and 3,876 banks or 60.2 per cent of the total number in group III, the small-sized-bank group. After this classification of member banks was made, the capital and surplus of the member banks in each group became as follows:

GROUP	AMOUNT (IN MILLIONS)	PER CENT (OF TOTAL)
I	\$3,333	76.9
II	668	15.4
III	333	7.7
<hr/>		
Total	\$4,334	100.0

On the basis of the one-bank-one-vote principle, each group elects two directors, one of whom, called a Class A director, is a banker and represents the stock-holding banks, while the other, called a Class B director, is a business man or farmer and represents the business community. To the six

directors so elected are added three others known as Class C directors, who are appointed by the central federal reserve authorities at Washington to represent the interests of the federal government and of the general public. One of these Class C directors, who is required to be a person of "tested banking experience," is designated by the central authorities as chairman of the board and as federal reserve agent. The board thus consists of nine directors, who hold office for three years (the term of office of one director of each class terminating each year), and who are representative of different interests among the American public. Broadly speaking, "Class A directors represent lenders of funds, Class B directors represent borrowers, and Class C directors represent the interests of the general public."¹

The board of directors appoints the officers and employees of a federal reserve bank. Prior to March 1, 1936, the chief executive officer was known as the governor and was elected by the board, although there was no specific provision in the law for the office of governor. The Banking Act of 1935 made definite provision for a president and a first vice-president to be appointed by the board of directors, with the approval of the Board of Governors of the Federal Reserve System, for a term of

¹ *The Federal Reserve System Today*, published by the Federal Reserve Bank of New York, p. 12

five years. The president is the chief executive officer of the bank and all employees of the bank are made directly responsible to him. In the absence or disability of the president or during a vacancy in the office of the president, the first vice-president acts as president.

Coordination of Federal Reserve System by Well-Balanced Organization

Crowning the arch, of which the twelve federal reserve banks constitute the structural stones, and forming its keystone, is the central Board at Washington, known as the Board of Governors of the Federal Reserve System.¹ This Board consists of seven members, appointed by the President of the United States with the advice and consent of the Senate, who hold office for a period of fourteen years. The law requires that the President in the selection of the members "shall have due regard to a fair representation of the financial, agricultural, industrial, and commercial interests, and geographical divisions of the country." Not more than one member shall be selected from any one federal reserve district. The President designates one member as chairman and one as vice-chairman, each to

¹ An amendment to the Federal Reserve Act made August 23, 1935, changed the name of the central governing board of the federal reserve system from Federal Reserve Board (the name it had previously had from the beginning) to Board of Governors of the Federal Reserve System. Hereafter the new name will be used in this book except where the period prior to the Banking Act of 1935 is contemplated.

serve a term of four years. The chairman is the Board's active executive officer. Members are not eligible for reappointment after they have served a full term of fourteen years.

The Board of Governors has very large supervisory powers over the federal reserve system, as will appear in the discussion which follows concerning the manner in which the system has functioned since its establishment in 1914.¹

¹ "In connection with its supervision of member banks, the Board is authorized among other things (1) to pass on the admission of State banks and trust companies to membership in the federal reserve system and on the termination of membership of such banks, (2) to examine member banks and receive condition reports from State member banks and their affiliates, (3) to limit by regulation the rate of interest which may be paid by member banks on time and savings deposits, (4) to issue voting permits to holding company affiliates of member banks entitling them to vote the stock of such banks at any or all meetings of shareholders of the member banks, (5) to regulate interlocking relationships between member banks and organizations dealing in securities or, under the Clayton Antitrust Act, between member banks and other banks, (6) to remove officers and directors of a member bank for continued violations of law or unsafe or unsound practices in conducting the business of such bank, (7) to suspend member banks from the use of the credit facilities of the federal reserve system for making undue use of bank credit for speculative purposes or for any other purpose inconsistent with the maintenance of sound credit conditions, (8) to pass on applications of State member banks to establish out-of-town branches, (9) to pass on applications of national banks for authority to exercise trust powers or to act in fiduciary capacities, (10) to grant authority to national banks to establish branches in foreign countries or dependencies or insular possessions of the United States, or to invest in the stock of banks or corporations engaged in international or foreign banking, (11) to supervise the organization and activities of corporations organized under federal law to engage in international or foreign banking. In exercising its supervisory functions over the federal reserve banks and member banks, the Board of Governors promulgates regulations governing certain of the activities of federal reserve banks and member banks." *The Federal Reserve System Today*, pp. 7-8

The Board of Governors is assisted by a Federal Advisory Council, consisting of twelve members appointed respectively by the boards of directors of the twelve federal reserve banks. The Advisory Council meets with the Board of Governors at least four times each year and oftener if requested by the Board.

The appointment by the Board of three of the nine directors (including the chairman) of each of the federal reserve banks, the requirement that the selection of the president and first vice-president of each reserve bank shall be approved by the Board of Governors, and the appointment by each federal reserve bank of a member of the Federal Advisory Council are intended to federate the twelve federal reserve banks under the Board of Governors and to give a common knowledge and a unity of purpose. Conferences from time to time of the presidents of the twelve federal reserve banks and the federal reserve agents, and conferences of the presidents and the federal reserve agents with the Board of Governors add much to the smooth and unified working of the system. In matters of general policy the Board of Governors is given large powers and is the directing head of the system.¹

¹ The Board's control is strengthened by its statutory powers (1) "To examine at its discretion the accounts, books and affairs of each federal reserve bank and of each member bank and to require such state-

Here then is the centralizing machinery created to bring order into our banking system and to make possible the development of broad financial policies which can be carried out with promptness and continuity.

In considering the manner in which the old evil of decentralization is being remedied by the federal reserve system, we may now pass from the administrative machinery of centralization to the methods by which the old evils of scattered and immobile reserves are being eliminated

District Centralization of Bank Reserves

The Federal Reserve Act as originally passed provided for the gradual withdrawal of legal reserve money from deposit in the banks of reserve and central reserve cities by the end of a three-year period beginning with the date of the establishment of the federal reserve system. Accordingly, after November 16, 1917, all legal reserve money of member banks was to be held "in the vaults of the member banks or in the federal reserve bank, or in both, at the option of the member bank." In conformity with this requirement the percentage of

ments and reports as it may deem necessary " (a) "To suspend or remove any officer or director of any federal reserve bank " (3) "To suspend, for the violation of any of the provisions of this Act, the operations of any federal reserve bank, to take possession thereof, administer the same during the period of suspension, and, when deemed advisable, to liquidate or reorganize such bank " (4) "To exercise general supervision over said federal reserve banks " Federal Reserve Act, section 11

the legal reserves of member banks kept on deposit in the banks of reserve and central reserve cities declined very much by the summer of 1917. On June 21, 1917, an amendment was passed to the Federal Reserve Act requiring every bank, banking association or trust company belonging to the federal reserve system to maintain its entire legal reserve in the form of a deposit at the federal reserve bank of its district. Thus by about five months the time was anticipated when legal reserve money of member banks should cease to be kept on deposit in banks other than federal reserve banks. The time therefore arrived in the summer of 1917 when commercial banks belonging to the federal reserve system ceased tying up their legal reserve money by depositing it in the banks of our money market centers there largely to be loaned out at call on the stock and produce exchanges. This divorcing of the legal reserves of our commercial banks from the speculative and capital loans of the stock market is one of the achievements of the federal reserve system. The federal reserve law, as amended, recognizes only one form of legal reserve, and that is a member bank's deposit in its federal reserve bank. Member banks may keep as much or as little cash on hand for till money as they wish to. They may keep balances in other banks if it suits their convenience to do so—all that is their own

affair¹ for which their responsibility is to their stockholders and their customers—but their legal reserve, the reserve which the government looks upon as the minimum below which the public interest demands that banks should not go, except in time of great emergency, must all be kept on deposit in federal reserve banks, the nation's principal reservoirs of reserve money.

If a member bank permits its reserve at the federal reserve bank to fall below the legal minimum, the Board of Governors imposes as a basic penalty a charge on the amount of the deficiency at the rate of 2 per cent per annum above the 90-day discount rate of the federal reserve bank of the district. Progressively heavier penalties may be imposed for subsequent deficiencies.

For reasons that will soon be made clear, the concentration of the country's reserve money in a few large reservoirs makes possible a much more efficient use of each dollar of reserve money than under the old system of scattered reserves, and, as a result, legal reserve requirements were greatly reduced—many authorities believe reduced too much—after the inauguration of the federal reserve system. The minimum statutory reserves

¹ A member bank is prohibited by law from keeping on deposit with any state bank or trust company which is not a member bank a sum in excess of 10 per cent of its own paid-up capital and surplus

required at the present time against demand deposits and time deposits are as follows:¹

BANKS	DEMAND DEPOSITS (Payable Within 30 Days)	TIME DEPOSITS (Payable After 30 Days' Notice)
Central reserve city banks	13 %	3 %
Reserve city banks	10 %	3 %
Country banks	7 %	3 %

Following a critical banking situation that reached its climax in "the bank holiday" of early March 1933—a situation which will be discussed later²—there was a rapid growth in the amount of reserves held by member banks in excess of legal requirements.³ These growing excess reserves involved an increasing threat or danger of inflationary credit expansion. This fact together with the desire of Congress to strengthen the authority of the Board of Governors over the expansion and

¹ Under the provisions of the National Bank Act, national banks are classified into three groups according to their location, namely, central reserve city banks, reserve city banks and country banks. There are now two central reserve cities, New York and Chicago, and sixty-one reserve cities which are listed regularly in the annual reports of the Comptroller of the Currency. The banks in all other places are classified as country banks.

Banks situated in the outlying districts of a central reserve city or a reserve city, or banks situated in territory added to such a city by the extension of its corporate charter, may, upon the affirmative vote of five members of the Board of Governors, reduce their legal reserves to the percentages required of country banks. In the case of banks situated in central reserve cities the reduction may be authorized to the percentage required of country banks or merely to that required of reserve city banks.

² *Infra*, pp. 173-82.

³ *Federal Reserve Bulletin*, August 1936, p. 615.

contraction of member bank credit led to the incorporation of a provision in the Banking Act of 1935, authorizing the Board of Governors, by administrative regulation "in order to prevent injurious credit expansion or contraction" to change the requirements as to reserves to be maintained against member bank deposits up to a maximum increase of 100 per cent above the statutory requirements at that time.¹

Under the authority of this law the Board of Governors made public on July 15, 1936, an order effective a month later increasing by 50 per cent all legal reserve requirements of member banks.² At the end of January 1937, the Board of Governors announced a further increase of these requirements, by $33\frac{1}{3}$ per cent, the maximum permitted under the law, thereby making the reserve requirements double what they were prior to August 15, 1936. One-half of this 1937 increase took effect March 1, and the remainder May 1. From that date to April 16, 1938, legal reserve requirements were as follows

¹ The Agricultural Adjustment Act of May 12, 1933, had contained a provision authorizing the Federal Reserve Board "upon the affirmative vote of not less than five of its members and with the approval of the President [to] declare that an emergency exists by reason of credit expansion, and [to] by regulation during such emergency [to] increase or decrease from time to time, in its discretion, the reserve balances required to be maintained against either demand or time deposits."

² *Federal Reserve Bulletin*, August 1936, p. 624, also *infra*, pp. 253-6.

BANKS	DEMAND DEPOSITS (Payable Within 30 Days)	TIME DEPOSITS (Payable After 30 Days' Notice)
Central reserve city banks	26 %	6 %
Reserve city banks	20 %	6 %
Country banks	14 %	6 %

These maximum requirements permitted under the Banking Act of 1935 were continued, however, slightly less than one year, and by April 1938, the economic depression that began in the summer of 1937 induced the Administration to relax them substantially. "As a part of the Government's recovery program outlined by the President in his message to Congress on April 14, the Treasury and the Board of Governors took immediate action to expand the volume of member bank excess reserves."¹ They reduced legal reserve requirements on all classes of deposits for all member banks, effective April 16, 1938. These new requirements which are still in effect are as follows:

BANKS	DEMAND DEPOSITS (Payable Within 30 Days)	TIME DEPOSITS (Payable After 30 Days' Notice)
Central reserve city banks	22 $\frac{3}{4}$ %	5 %
Reserve city banks	17 $\frac{1}{2}$ %	5 %
Country banks	12 %	5 %

¹ *Federal Reserve Bulletin*, May 1938, p. 343

The effect of this reduction in reserve requirements was an immediate increase in the total excess reserves of all member banks from \$1,666 million to \$2,491 million.

On September 28, 1938, the twelve federal reserve banks held deposited reserves of member banks to the amount of \$8,197 million. Reserve money collected in a few large reservoirs is quickly available in large quantities either for domestic needs or for the purpose of providing gold for export, and the fact that it is readily available in large quantities inspires public confidence and lessens the danger of financial disturbances. The federal reserve banks, of course, do not keep on hand all the reserve money deposited by member banks. Like other banks, they invest it. The law, however, requires them to keep a normal minimum reserve of 35 per cent in gold certificates or lawful money against deposits,¹ and it is their established policy to maintain reserves much larger than this minimum.

Mobilization of Reserves

A corollary to the district centralization of reserves is their mobilization. Reserve money must not only be piped into a few large reservoirs, but these large reservoirs must be piped together, and there must be a pumping engine of sufficient

¹ See section 16 of the Federal Reserve Act

power to force the reserves promptly and in large quantities to any place desired. The federal reserve system creates machinery for this purpose. It provides numerous devices by which reserve money can be quickly moved from places of redundancy to places of scarcity. A few of the more important of these devices will be briefly described here, while others will be discussed later in connection with the general topics of currency and credit elasticity and the transfer system. Let us consider first the inter-district mobility of reserve money, namely, the movability of reserves from one federal reserve district to another; and second, the intra-district mobility of reserves, or the movability of reserves within the boundaries of one district.

Inter-district Mobility

Broadly speaking, and in addition to certain small advances made by federal reserve banks directly to industry,¹ there are three ways in which the federal reserve law has increased the inter-district mobility of reserve money. They are. (1) rediscounting by one federal reserve bank for another; (2) open-market operations of federal reserve banks; and (3) creation of a broader discount market for business paper.

¹ *Infra*, pp. 165-7

*Rediscounting by One Federal Reserve Bank
for Another*

Under the old banking system, as we have seen, in time of emergency, each bank held tight its own reserves, or, to change the figure, "sat firmly on the lid." In the controversy for banking reform, which culminated in the Federal Reserve Act, the advocates of a single central bank contended that a system of eight to twelve banks like that proposed in the federal reserve bill would perpetuate the old evil by leading to the same sort of scramble for reserves, in time of emergency, among the different federal reserve banks, which had formerly existed among the individual banks of the country. Specifically to meet this danger a provision was inserted in the Act (section 11b) empowering the Federal Reserve Board "to permit, or, on the affirmative vote of at least five members of the Reserve Board to require federal reserve banks to rediscount the discounted paper of other federal reserve banks at rates of interest to be fixed by the Federal Reserve Board." This means that in case there is an exceptionally heavy demand for reserve money in any section of the country—a demand heavier than the banks of that section can reasonably meet—the reserve banks in other sections where money is more plentiful will come to the rescue, either voluntarily or under compulsion of

the Board of Governors, and will rediscount the paper of the reserve bank in the section under financial stress. This process, of course, will cause a flow of cash from the reserves of the former banks to the reserve of the latter, thereby easing the money market in the threatened section.

After the United States entered the World War there developed a strong tendency for a compensatory movement of reserves among the federal reserve banks. Reserves of some of the banks frequently fell rapidly while those of others were rapidly rising, often with little or no change in the reserve position of the twelve federal reserve banks as a whole. This compensatory movement was due largely to operations of the government which often resulted in heavy withdrawals of funds from banks in one section of the country for the making of payments in another. Here was a situation that made it desirable from time to time that one federal reserve bank should make advances to another. At times the Board has taken the initiative in this matter, but apparently the banks, in most cases, have willingly complied with the Board's request. The twelve federal reserve banks have worked harmoniously in this connection, so that it seems improbable that compulsion by the Board will often be necessary to require the more favorably situated banks to come to the rescue of those less favorably situated, in time of danger. The

reserves of the twelve reserve banks are now so closely piped together, that they may reasonably be considered to be closely connected tanks of a single reservoir.

Open-market Operations

While the federal reserve banks are essentially bankers' banks, since their stock is owned exclusively by member banks and since their principal domestic customers are banks, it is none the less true that Congress has conferred upon these banks certain limited rights of dealing with the public at large. At the time of the passage of the Federal Reserve Act, the possession of such rights by the federal reserve banks appeared necessary for two reasons.

The first reason was to put them in a stronger position for making their discount rates effective. If, for illustration, a federal reserve bank raises its discount rate in order to prevent dangerous loan expansion on the part of member banks or to prevent an undue outflow of gold from the country, it may happen that the member banks may not be convinced of the need of such precautionary measures, and, not being in need of obtaining funds from the federal reserve bank by way of rediscount, may ignore the efforts of the federal reserve bank to conserve the money market. The banks may accordingly continue the policy of loan expansion

at low discount rates. Under such circumstances the federal reserve rate would be said to be "ineffective." To meet such situations and to force the member banks "into line," the federal reserve banks may raise their buying rate for bank acceptances in the open market or they may actively go into the market and sell government securities, and, by withdrawing from the market the funds received in payment therefor, may tighten the market, and force up the market discount rate into harmony with the federal reserve discount rate.

The second of these early reasons for authorizing open-market operations was to provide the federal reserve banks with a method of profitably employing their funds in times of easy money, when member banks are making few calls upon them for rediscount. In the early days of the federal reserve system, for example, when the member banks were making very small demands upon the federal reserve banks for rediscounts or other advances, the federal reserve banks invested substantial sums in municipal warrants and bank acceptances in the open market, and by that means covered a large part of their running expenses.

The "open-market operations" are provided for chiefly in section 14 of the Federal Reserve Act. Into the details of this important section we need not go. For our purposes here it is sufficient to note that federal reserve banks may buy and sell in the

open market either at home or abroad commercial bills of exchange, bankers' acceptances and United States government obligations also bonds of the Federal Farm Mortgage Corporation and of the Federal Home Loan Bank System, with short maturities, and bills, notes, revenue bonds and warrants with short maturities, issued in anticipation of taxes and other revenues by states and minor political divisions of the continental United States. During the period of the World War and following the economic crash of 1929, these open-market operations, particularly in their application to United States government obligations, assumed great importance in the operations of the federal reserve system ¹

Under the authority of section 14 a federal reserve bank in one section of the country may buy and sell eligible paper in any other section of the country. Such dealings, of course, tend to cause a flow of reserve money from the district of the buyer to that of the seller. If the Federal Reserve Bank of San Francisco, for example, buys a million dollars worth of trade acceptances, bank acceptances and municipal warrants in the open market in New York, its settlement check to whomever paid is likely to be deposited in a New York bank, and to be collected for that bank by the New York Federal Reserve Bank from the San Francisco Federal Re-

¹ *Infra*, pp. 141-4, and pp 200-4

serve Bank Unless offset by payments in the other direction, the payment by San Francisco will necessitate a transfer of reserve money, presumably through the "Interdistrict Settlement Fund" in the United States Treasury from San Francisco to New York. If the New York bank, in which the million dollar check was originally deposited, leaves the proceeds on deposit with the New York Federal Reserve Bank, federal reserve bank "reserve money" will be transferred from the Bank in San Francisco to the Bank in New York. In this manner open-market operations transfer reserve money from places of redundancy to places of scarcity, and tend to maintain a national equilibrium in our money rates.

*Creation of a Broader Discount Market for
Business Paper*

The third method by which the federal reserve system is rendering more mobile our reserve money is through the creation of a broader discount market for business paper. As we have already seen, under the old banking system the great bulk of American business paper was essentially local paper with little or no market outside the community in which it was created. The federal reserve system has provided the machinery by which high grade business paper can be rediscounted throughout the United States, and, in

this connection, has sought to encourage in the United States the use of trade acceptances and bank acceptances—credit devices widely used in Europe.

Trade Acceptances

When the seller of merchandise draws a trade bill upon the buyer at, say, 60 days' sight for the amount of the bill, and the buyer writes across its face "accepted" and signs his name with the date of acceptance, a credit instrument is created which has very pronounced advantages over the open-book account, from the standpoint of the seller, the buyer and the bank. The seller has a definite acceptance of the goods which the buyer cannot question in the future without very good reason; he has a promise from the buyer to pay at a definite date; and this promise is expressed in the form of a negotiable instrument which is highly liquid. The buyer of the merchandise who accepts the bill places his credit standing at a level higher than if he bought on open-book account. His improved credit should enable him to buy on better terms. Having his accounts thus given definite maturities he is less likely to be tempted to over-buy than he would be under the loose open-book account method. The buyer is also a seller, and if he uses trade acceptances in connection with his purchases he is in a stronger position to demand

them in connection with his sales. From the banker's point of view the trade acceptance is an ideal form of business paper. It bears two names, usually carries with it evidence that it represents a self-liquidating commercial transaction and is not an accommodation loan, is usually paid at maturity and is not subject to the provision of the national banking law which prohibits a national bank from loaning to one customer an amount in excess of 10 per cent of the bank's capital and surplus. It is easy to turn into cash before maturity either by sale in the open market or by rediscount at a federal reserve bank. The trade acceptance is therefore incomparably more liquid than the open-book account, and, other things equal, is more liquid than one-name paper. Like any other credit device the trade acceptance, of course, can be misused and, unfortunately, frequently is misused.

Bank Acceptances

Even more liquid than the trade acceptance, because the acceptor is usually of more widely recognized financial standing, is the domestic bank acceptance authorized by the federal reserve law. The bank acceptance is similar to the trade acceptance. It differs from it, however, in the fact that the seller of the merchandise draws his bill not upon the buyer but upon the buyer's bank, which accepts the bill for the buyer whose financial standing is

known to the bank and who has arranged with the bank in advance to lend him its credit in this way. The seller of the merchandise having received an acceptance of the bill from the buyer's bank may discount the bill at his own bank or sell it in the open market if he does not wish to hold it until maturity. The type of domestic bank acceptance made eligible for rediscount at federal reserve banks covers bills having not more than 90 days, exclusive of days of grace, to run and which are endorsed by at least one member bank and grow out of transactions involving the importation or exportation or the domestic shipment of goods, provided that documents conveying or securing title are attached at the time of acceptance. It also covers bills which are secured at the time of acceptance by a warehouse receipt or other such document conveying or securing title covering readily marketable staples. When such acceptances are drawn for agricultural purposes, their maturity may be as long as nine months' sight exclusive of days of grace.

*Acceptances Promote Inter-district Mobility of
Reserves and Uniform Discount Rates*

Inasmuch as bank acceptances and high-grade trade acceptances have a wide market, their use tends to cause paper to flow away from the banks in sections of the country where the discount rate is

relatively high to be discounted in the banks of those sections where the rate is relatively low. Such a flow of business paper from the dear markets to the cheap ones, obviously causes a counter-flow of bank reserves from the cheap markets to the dear ones and thereby tends toward the maintenance of territorial equilibrium in discount rates. Of course, this flow is not an absolutely free one and perfect equilibrium is never obtained. The point is, however, that the widened marketability of our business paper under the federal reserve system has made this flow of reserve money much less sluggish than it was formerly. During recent years the discount rates for different kinds of paper, and those for the same kind of paper among the twelve federal reserve banks have been much nearer uniformity than they were in the early days of the federal reserve system. For example, at the present writing, September 30, 1938, the rediscount rates for member banks on all classes of paper (under sections 13 and 13a of the Act) are 1 per cent for the Federal Reserve Bank of New York and $1\frac{1}{2}$ per cent for all of the eleven other banks.

Intra-district Mobility of Reserves

The forces which act for the increasing mobility of reserve money within the boundaries of a federal reserve district, are essentially the same as those just explained for that between districts. Obviously

paper of wide acceptability flows from place to place within a district more freely than paper whose merits are less widely recognized; and, within a district, as between districts, the widely marketable paper flows from the places where discount rates are high and bank funds are scarce to the places where the rates are low and funds are more plentiful. Furthermore, the bank reserves of the district which have been piped to the one reservoir, namely, the federal reserve bank, can be readily pumped to the banks of any section of the district where funds are in heavy demand. If banks throughout the district were rediscounting in moderate sums with the federal reserve bank, and if a sudden emergency should cause an exceptionally heavy demand for funds in any section, the federal reserve bank could raise its rate of discount, thereby reducing the rediscount demands of the banks less urgently in need of funds, and could then turn larger amounts into the section where the demand was heaviest. Additional funds could be obtained by the federal reserve bank within the district (as well as outside) by the sale of securities in the open market.

In the illustrations so far given we have assumed a fixed amount of banking funds, and have shown how these funds can be readily mobilized under the federal reserve system and concentrated at the points where they are most needed. The problem

of meeting unusual calls for banking funds is, however, an easier one under the federal reserve system than the above discussion implies. The reason is that under this system there exist in addition certain elastic elements in our supply of bank funds. These will be considered in the next chapter.

CHAPTER VII

CREDIT ELASTICITY UNDER THE FEDERAL RESERVE SYSTEM

BOTH bank-note currency and deposit or check currency are more elastic under the new system than under the old.

Bond-secured Bank Notes

In order to prevent the alleged danger of an undue contraction of the currency and to protect from loss the banks owning the 2 per cent bonds, which were largely pledged with the government as security for national bank-note circulation and which by reason of the circulation privilege had a value far above their investment value, the government decided not to withdraw from circulation at once the old bond-secured bank notes. The Federal Reserve Act of 1913 accordingly continued the circulation of these notes, but contained provisions looking toward their gradual retirement. From the time of the enactment of the Federal Reserve Act, accordingly, to December 31, 1929, the national bank notes in circulation decreased from \$726 million, representing about 21 per cent of our total monetary circulation, to a minimum of \$597 million, representing about 12 per cent. During the depression years, when issue was permitted against

any United States government bonds bearing less than $3\frac{1}{2}$ per cent interest, their circulation increased to a maximum of \$938 million in February 1934. They then constituted $17\frac{1}{2}$ per cent of our total monetary circulation. Their circulation declined almost continually throughout the remainder of 1934 and until March 1935, when it stood at \$810 million. In that month the Treasury Department called for redemption at early dates, all the bonds that permanently carried the so-called "circulation privilege," and all bond-secured national bank notes have since that date been in process of retirement from circulation.¹ On August 31, 1938 the amount still in circulation was \$211 million.

Very similar to the bond-secured national bank notes are the so-called federal reserve bank notes, which are bond-secured bank notes issued by the federal reserve banks. They were originally secured by a specific deposit, with the United States Treasurer, of bonds or of certain short-time obligations of the United States. Up to the early fall of 1918 these federal reserve bank notes were of comparatively little consequence. After that time they were gradually substituted for silver certificates and silver dollars in circulation, under the provisions of the Pittman Act of April 23, 1918, and assumed an increasing importance, until a maximum net circulation of \$261 million was outstand-

¹ *Infra*, pp. 225-7

ing in December 1919. Their retirement from circulation began early in 1920 when the government commenced to repurchase silver under the Pittman Act, and to replace federal reserve bank notes in circulation by silver certificates. After 1919, their circulation declined to less than \$3 million in February 1933. For a time thereafter the government began to expand their circulation again as a minor factor of its "reflation" policy, and it rose continually every month until December 1933, when it stood at \$208 million. Since then it has been steadily reduced and on August 31, 1938, it was only \$29 million.

Federal Reserve Notes

The notes upon which the federal reserve system places its sole reliance for bank-note elasticity are the so-called federal reserve notes. These notes, which are issued to the federal reserve banks by the Board of Governors and which are obligations of the United States government, are a "first and paramount lien on all the assets" of the federal reserve banks, including the double liability of member banks on their subscriptions to federal reserve bank stock. The Board of Governors issues these notes for circulation purposes to the federal reserve banks only on receipt from the federal reserve banks of collateral equal to at least the amount of the notes applied for. The collateral is

deposited with the federal reserve agent, who represents the Board of Governors, and it is limited to certain types of assets specified by law. These include: (1) Paper endorsed by member banks and drawn for commercial, industrial or agricultural purposes, or for the purpose of carrying or trading in securities of the United States government, in other words, paper of the types hereafter described¹ as eligible for rediscount or collateral loans at a federal reserve bank under section 13 of the Federal Reserve Act. (2) Bills of exchange endorsed by a member bank and bankers' acceptances bought by a federal reserve bank in the open market. (3) Until June 30, 1939, upon the affirmative vote of not less than a majority of the Board of Governors, direct obligations of the United States government. Such obligations, however, since the Banking Act of 1935 may be bought by the federal reserve banks only in the open market.² (4) Gold certificates.

Except under special circumstances, to be considered later,³ a gold certificate reserve of not less than 40 per cent must be kept by each federal reserve bank against its outstanding federal reserve notes. Gold certificates specifically pledged with the federal reserve agent as collateral for the notes may be counted in making up this 40 per cent reserve, as may also gold certificates kept in the

¹ *Infra*, pp. 75-8.

² *Infra*, p. 239.

³ *Infra*, pp. 65-6

redemption fund with the Treasurer of the United States at Washington for the redemption of the notes.

Elasticity of Federal Reserve Notes

As regards the matter of elasticity, these notes possess the quality of expansibility, namely, of having their circulation easily increased in times of need. If member banks in a given section of the country need an increased supply of currency to meet local demands, they may rediscount eligible paper with their federal reserve bank and take the proceeds of the rediscounts in federal reserve notes, which pass readily as hand-to-hand money and are satisfactory till money for the banks. The federal reserve bank, if its supply of notes is inadequate, secures, on application to the federal reserve agent additional notes by depositing with the agent, gold certificates, eligible paper from its portfolio or (for the time being) direct obligations of the United States government. This process may continue as long as the federal reserve bank has satisfactory collateral available for deposit with the federal reserve agent and its gold certificate reserve does not fall below the normal legal minimum of 40 per cent. In case of great emergency, however, the Board of Governors may permit a reduction of the note reserve below 40 per cent, provided it imposes a graduated tax up-

on the amount of the deficiency—a tax which must be added to the rates of interest and discount fixed by the Board of Governors. Furthermore, to meet extreme emergencies the Board is authorized to suspend for a period not exceeding thirty days (and from time to time to renew such suspension for periods not exceeding fifteen days) any reserve requirements specified by the Act. It is thus seen that the federal reserve notes have ample power of expansion in time of emergency and that there no longer exists a stonewall limit beyond which expansion cannot go and go promptly. There is no fixed limit, but after the gold-certificate reserve ratio has declined below 40 per cent, further expansion of note circulation could normally be secured only at an increasing expense to those wishing the notes.

The notes issued to the twelve federal reserve banks amounted to \$4,515 million on September 28, 1938, and of these, \$4,219 million were in actual circulation. Back of these notes there was held the following collateral.

	<i>Thousands</i>
(1) Gold certificates on hand and due from United States Treasury	\$4,604,000
(2) Eligible paper	8,267
Total collateral	<u>\$4,612,267</u>

For the purpose of contracting the circulation of federal reserve notes as the business demands for currency decline, the machinery is as follows. When the demand for notes in the pockets of the people and the tills of merchants falls off, as it does, say, after the Christmas holiday season, the surplus notes are deposited by the public in the banks. The banks in turn tend to send to their federal reserve banks for deposit any notes they receive in excess of the amount needed for till money. Transportation charges on such shipments of notes are paid by the federal reserve bank. Notes which were issued by the federal reserve bank of the district may thus be withdrawn from circulation. Notes so received which were issued by other federal reserve banks are sent back to the issuing banks. On this subject the law says: "Whenever federal reserve notes issued through one federal reserve bank shall be received by another federal reserve bank, they shall be promptly returned for credit or redemption to the federal reserve bank through which they were originally issued or, upon direction of such federal reserve bank, they shall be forwarded direct to the Treasurer of the United States, to be retired. No federal reserve bank shall pay out notes issued through another under penalty of a tax of ten per centum upon the face value of notes so paid out" (section 16). This requirement that federal reserve banks shall send back promptly the notes of other

federal reserve banks will obviously increase in its effectiveness as a means of currency contraction with the increase in the number of branches of federal reserve banks established throughout the country.

Another device calculated to encourage the retirement from circulation of bank notes whenever they become redundant is the provision of the law authorizing the Board of Governors to charge such a rate of interest as it may deem desirable on federal reserve notes uncovered by gold certificates and issued to federal reserve banks. Up to the present time such an interest charge has never been imposed.

These provisions have in fact resulted in considerable seasonal elasticity in the total amount of money in circulation, owing principally to the seasonal elasticity of the federal reserve note circulation, which today constitutes over five-eighths of the total circulation. This is evident from Chart IV on page 69 showing the total amount of money in circulation by months for the years 1926-38, compared with the volume of federal reserve notes in circulation. The seasonal variation here apparent in the circulation of federal reserve notes should be compared with the lack of seasonal variation in national bank notes shown in Chart II on page 16 above.

MONEY IN CIRCULATION

(END-OF-MONTH FIGURES)

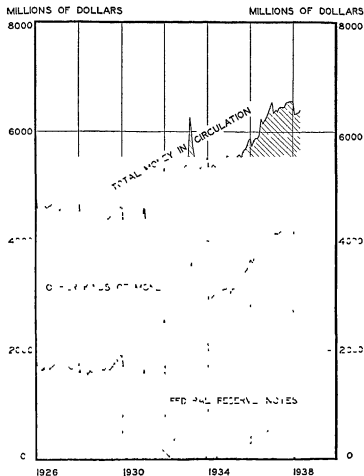


CHART IV

Showing what part of total money in circulation consists of federal reserve notes, and showing also the clearly defined seasonal variations in federal reserve notes in circulation

*Emergency Elasticity of Federal Reserve Notes
Provided by the Glass-Steagall Act of 1932*

The theory underlying the circulation of federal reserve notes is that they will increase automatically in volume with growing trade requirements, as reflected in an increasing volume of business paper rediscounted with the federal reserve banks, and similarly that there will occur an automatic retirement of federal reserve notes as trade needs decline. However, in an emergency period such as existed in the United States between 1929 and 1938, it may happen that currency demands from time to time will lose their normal relationship to the rise and fall of trade demands. The amount of currency demanded relative to the amount of business being done may then become greater, because of the hoarding of money, decreased rate of monetary turnover, and numerous bank failures, at times when both trade and the volume of rediscounted paper are declining. At such times the demand for an increase in the amount of money in circulation is not due to increased trade requirements, but in part to an extensive substitution of cash payments for check payments in communities where banks have failed. It is also due in part to a breakdown of confidence resulting not only in private hoarding but also in the taking of precautionary measures by many commercial banks

which substantially increase their vault cash to enable them to meet the hazards of bank runs.

While it is true that published figures reveal that there was a large aggregate volume of commercial paper eligible for rediscount in the portfolios of the member banks in the autumn of 1931 and early in 1932, many individual banks, nevertheless, had little or no such eligible paper. In order to take care of this situation, the Glass-Steagall Act was passed as an emergency measure on February 27, 1932. This and subsequent legislation amended section 16 of the Federal Reserve Act so as to make possible the acceptance of the direct obligations of the United States government purchased in the open market as collateral against the issuance of federal reserve notes. However, if a federal reserve bank desires to obtain federal reserve notes in return for the deposit of United States government bonds with a federal reserve agent, the approval of a majority of the members of the Board of Governors is required. This privilege was originally to extend only until March 3, 1933, but was subsequently renewed on various occasions. Its expiration date according to present law is June 30, 1939.

The following table shows for each of the years 1932 to 1936 inclusive (month-end figures) the largest and smallest amount of United States gov-

ernment securities held as collateral for federal reserve notes¹

YEAR	MAXIMUM (millions)	MINIMUM (millions)
1932	\$635 June	\$205 May
1933	885 Mar.	313 Jan.
1934	570 Jan.	241 Dec.
1935	238 May	123 Nov
1936	135 Jan.	57 Apr.

Now that our United States government bonds are no longer specifically payable in gold but merely in inconvertible legal tender money, including federal reserve notes themselves, the policy of securing the notes by the bonds is fundamentally unsound. The notes are secured by the bonds and the bonds are payable in the notes, which in turn are no longer convertible into gold on demand. Such notes are in important respects similar to the German Reichsbank notes which after the World War depreciated to a trillionth of their original gold value. Since the emergency which led to this policy in the United States is past, the policy should be discontinued.

Elasticity of Deposit Currency

Elasticity of deposit currency, although it has not received as much attention in our economic literature as has been devoted to the elasticity of

¹ *Annual Reports of the Board of Governors of the Federal Reserve System, passim.*

bank-note currency, is of greater importance because the amount of business done by means of deposit currency is many times greater than that done by means of bank notes. Prior to the establishment of the federal reserve system, as we have seen,¹ our deposit currency, although not as inelastic as our bank-note currency, was none the less deficient in the quality of elasticity. How has the federal reserve system remedied this defect?

*Removal of Old Rigid Legal Reserve
Requirements*

The federal reserve system increased the elasticity of our deposit currency in a number of ways. In the first place, it removed the rigid legal reserve requirements of our national banking system and put in their place much less rigid provisions. The only legal reserves now required of national banks are reserves deposited in the federal reserve banks. For till money, banks are permitted to hold in their own vaults as much or as little money as they individually need, and the kinds of money they desire.

As previously noted,² a powerful new element of elasticity has recently been incorporated into our banking system by giving to the Board of Governors authority to raise or lower legal reserve re-

¹ *Supra*, pp 17-8

² *Supra*, p 45

quirements for member banks, thereby tending respectively to contract, or to expand the country's deposit currency circulation

The federal reserve banks themselves are required to hold against deposits a legal reserve of lawful money equivalent to 35 per cent ¹ Unlike member banks, however, the federal reserve banks are not pressed by competition and by the desire for profits to take up the slack and reduce their reserves in ordinary times to this normal legal minimum. There has been no evidence that the federal reserve banks will keep their credit extended to near the legal limit, as individual banks commonly did in the not very distant past. Despite the urgent need of funds brought about by post-War conditions, during the 'twenties, our federal reserve banks adopted the policy of maintaining reserves well above the legal minimum, and since 1930, with a few exceptions covering comparatively brief periods, they have continued to do so. They have little incentive to reduce their reserves to a dangerously low figure, because no earnings of a federal reserve bank above the amount required to pay an annual 6 per cent cumulative dividend on its stock can ever be paid to a member bank

¹ In this connection it should be noted that the Federal Reserve Act, Section 11 (4c), empowers the Board of Governors "To suspend for a period not exceeding thirty days, and from time to time to renew such suspension for periods not exceeding fifteen days, any reserve requirements specified in this Act"

Fortunately there has appeared no evidence of competition among the federal reserve banks to see which can show the largest profits

The most important device of the federal reserve system for securing elasticity of deposit currency, as well as of bank-note currency, is found in the machinery enabling member banks to borrow funds of their federal reserve bank ¹ Funds so borrowed, when left on deposit with the federal reserve bank, serve as legal reserve money for the member banks. The making of such loans to member banks is one of the chief functions of federal reserve banks. Broadly speaking the loans are of two kinds, rediscounts, and loans on collateral. Let us consider briefly each of these types of loans.

Rediscounting

Federal reserve banks always stand ready to rediscount in time of need eligible paper for member banks and for federal intermediate credit banks.

¹ For example, a country bank, whose reserve is in danger of running below the 7 per cent of demand deposits, and the 3 per cent of time deposits, required by law—assuming the minimum statutory requirements in force—or which is in need of more cash for till money, may take \$10,000 of its eligible commercial paper to its federal reserve bank and have it rediscounted for 60 days at, say, $4\frac{1}{2}$ per cent. The proceeds would be \$9,925, which at 7 per cent would represent a legal reserve sufficient for \$141,786 of demand deposits, and would therefore greatly increase the bank's lending power. Any part of the proceeds of the rediscount in excess of that needed to maintain the bank's 7 per cent legal reserve with the federal reserve bank could be checked against and taken in cash, presumably in federal reserve notes, for the bank's till money.

For the purpose of keeping the assets of federal reserve banks liquid, the law and the administrative regulations of the federal reserve authorities place limitations upon the kinds of paper eligible for rediscount. These limitations have reference both to the length of time the paper is to run, and to the purpose for which it is issued. As to time, notes and bills rediscounted must have a maturity at the time of rediscount of not more than 90 days (exclusive of days of grace), except that when such paper has been issued or drawn for an agricultural purpose, or is based upon livestock, it may have a maturity, at the time of rediscount, of nine months (exclusive of days of grace). The Board of Governors may regulate the volume of such agricultural rediscounts.

As to the purpose for which rediscountable bills and notes may be issued, the law limits rediscounts to the following classes of paper: (1) notes, drafts and bills of exchange bearing the endorsement of a member bank or of a federal intermediate credit bank issued, drawn or used for agricultural, industrial or commercial purposes, (2) notes, drafts and bills of exchange bearing the endorsement of a member bank and issued or drawn for the purpose of carrying or trading in bonds and notes of the government of the United States, and (3) notes with maturities at time of rediscount not exceeding

nine months (exclusive of days of grace), that are secured by veterans' adjusted service certificates, whether or not the bank offering them for rediscount is a member of the federal reserve system.

Collateral Loans

The second type of loan to member banks consists of short-term advances on their secured promissory notes. Such advances for periods not exceeding fifteen days can be made by the federal reserve banks on the promissory notes of member banks when secured by a deposit or pledge of the direct obligations of the United States government, or its fully-guaranteed obligations (including Federal Farm Mortgage Corporation bonds or Federal Home Owners Loan Corporation bonds), or the debentures or other obligations issued by a federal intermediate credit bank. Similarly, loans can be made to member banks on their promissory notes, for periods not exceeding ninety days, when secured by notes, drafts, bills of exchange or bankers' acceptances that are eligible for rediscount or purchase by the federal reserve banks.

There was no provision in the original Act for collateral loans, but experience soon showed that member banks frequently wished to obtain advances from the federal reserve banks for brief periods—so brief that they were reluctant to rediscount customers' paper for the purpose. To

meet the difficulty, an amendment to the Federal Reserve Act was passed September 7, 1916, authorizing these short-time collateral loans, and several subsequent amendments to the law on this subject have been made. The authority to make such loans proved to be particularly useful in connection with the war-time financing by the banks of Liberty bond and certificate of indebtedness purchases either for themselves or for their customers—purchases which were likely to involve heavy drain upon the banks for very brief periods. During the years 1917 to 1920 these collateral loans constituted by far the most important form of advance made by federal reserve banks to member banks. Most of these loans were secured by United States certificates of indebtedness and Liberty bonds. After the summer of 1920, however, there was a great decline in the amount of short-time loans collateralized by the public debt which were held by federal reserve banks. During 1928 and 1929 the volume of such loans to member banks again increased so that in March 1929 member bank collateral notes secured by United States government obligations amounted to nearly \$676 million, compared with \$1,510 million on December 26, 1919, and with only \$187 million on December 31, 1924. The amount of such loans to member banks has since decreased again and on September 28, 1938, amounted to only \$6 million.

*Provisions of the Glass-Steagall Emergency Measure
of 1932 Relating to Collateral Loans*

During 1931-33, a period of extraordinary business depression, low business confidence, and widespread hoarding, many banks, particularly the smaller banks, reached a point where they had little opportunity to make loans that fell within the category of eligible paper. Furthermore, they found their credit expansibility brought to a sudden halt by the unprecedented decline in value of the secondary reserves which they held in the form of investments in government bonds, corporation bonds, and other securities.

The great severity of the 1931-33 breakdown may be realized by comparing the volume of bank suspensions and commercial failures which occurred then with the corresponding figures for previous depression years.

Year	BANK SUSPENSIONS		COMMERCIAL FAILURES	
	Number	Liabilities	Number	Liabilities
1893 ¹	421	\$ 122,377,000	15,242	\$346,780,000
1908	176	203,401,000	15,690	222,316,000
1921	505	172,188,000	19,652	627,402,000
1931	2,294	1,690,669,000	28,285	736,309,000
1932	1,456	715,626,000	31,822	928,313,000
1933 ²	5,148	4,497,969,000	20,307	502,831,000

¹ There is a slight difference between the method of computing the bank suspension figures for the years 1893 and 1908, and that for the

It will be noted, when comparison is made with previous depression years, that the three years of this period were characterized by a much larger ratio of bank failures to commercial failures, both in number of failures and in the amount of liabilities involved.

In order to relieve the extreme pressure upon the banks, a number of emergency measures were adopted by Congress and by the various state governments. The most important of the early measures was the Glass-Steagall Act of February 27, 1932. This act added two sections to the federal reserve law, sections 10a and 10b.

The amendments provided that member banks either in groups of five or more, or as individual banks, might borrow from the federal reserve banks upon other security than that heretofore defined as eligible for rediscount, if approval was given by five or more members of the Federal Reserve Board. This privilege could be used, however, only

later years given in the table. See *Annual Report of the Federal Deposit Insurance Corporation for 1934*, pp. 92-4.

² This was the year of the "banking holiday" in early March, when for a time all the banks of the country were closed. The figures here given cover (1) all banks suspending prior to the "banking holiday", (2) all banks that remained closed after the expiration of the "banking holiday", and (3) all banks that closed subsequent to the "banking holiday". Many of these banks subsequently reopened. Of the 1,492 suspended national banks with deposits of \$2,062 million, 421 with deposits of \$766 million did not reopen and of the 3,656 state banks suspending with total deposits of \$2,436 million, those not reopening had deposits of \$1,272 million. *ibid.*, p. 95.

if the member banks in question did not have in their individual portfolios eligible paper on which they could borrow from a federal reserve bank in the ordinary way sufficient to meet all reasonable demands made by their depositors. Furthermore, the rate of interest on such loans was to be 1 per cent above the discount rate of the federal reserve bank; and finally, the security offered as collateral for the loan was to be scrutinized and approved by the federal reserve bank, and in no case could such security be foreign obligations of any sort. Although the Glass-Steagall Act in part (section 10b) was intended as an emergency measure to be in force only one year, this legislation (with slight change) has since been made a permanent part of the Federal Reserve Act.¹

Contraction of Circulating Credit

So far we have been speaking of the elasticity of deposit currency under the new banking system in the direction of expansion in times of increasing currency demand. According to the theory on which the federal reserve system was established, the contraction of deposit currency, when that becomes necessary, should be brought about by the pressure of rising rediscount rates and the sale by the federal reserve banks of government securities and bankers' acceptances in the open market. Such

¹ cf *infra*, p 159

sales withdraw money from the market when payment is made for them, reduce member bank reserves, and tend to increase the indebtedness of the member banks to the federal reserve banks. Rising discount rates, in turn, make all borrowing from the federal reserve banks more expensive. The result is that the member banks become more reluctant to make new loans to their customers and less disposed to renew loans already outstanding.

A new power of credit expansion and contraction was given to the Board of Governors by the emergency legislation of 1933 and the Banking Act of 1935 in the Board's authority administratively to vary at its discretion member bank reserve requirements within the limits of the statutory minima and maxima twice as high.

In the exercise of these powers a great public responsibility rests upon the federal reserve authorities to conserve the banking strength of the country in times of easy money, so that it will be adequate to meet the calls made upon it in times of emergency.

There is no question but that the federal reserve system has added to the elasticity of both our deposit currency and our bank-note currency.

CHAPTER VIII

DOMESTIC AND FOREIGN EXCHANGE UNDER THE FEDERAL RESERVE SYSTEM

WE may now pass to the consideration of how the federal reserve system is meeting the difficulties of the old banking régime as regards domestic and foreign exchange. Domestic exchange will be considered first.

Domestic Exchange

Under the old régime the collection and clearing of out-of-town checks for country banks was handled largely by the banks in reserve and central reserve cities, which were the depositaries of a large part of the legal reserves of the country banks.¹ The service of collecting these out-of-town checks was rendered to the country bank as a partial compensation for the use of its reserve deposits at a low rate of interest, and as a lure in securing other business from the country bank, since competition for the accounts of out-of-town banks was keen among large banks in money market centers. When Congress decided, therefore, that the practice of pyramiding the legal reserves of national banks by permitting them to be deposited to a large extent in other national banks was unsound

¹ *Supra*, pp 20-2

and should be discontinued, it was naturally forced to provide machinery to take the place of the reserve and central reserve city correspondent banks for the work of collecting out-of-town checks. If the country bank was no longer to be permitted to count a deposit with its city correspondent as legal reserve money, but was to be compelled to maintain its entire legal reserve in its own vaults and on deposit with its federal reserve bank, it would naturally withdraw or at least greatly reduce its deposit balance with its correspondent banks. But under such circumstances, who would collect its out-of-town checks and otherwise serve it in connection with out-of-town business? The city bank, no longer holding the country bank's reserve deposits, would not be disposed to perform without charge these services for the country bank; and further, having ceased to be the country bank's reserve agent, the city bank would very likely want to compete for some of the country bank's most attractive business. Obviously, if the new federal reserve banks were to displace city correspondent banks as the holders of the country banks' deposited reserves, they should also perform for the country banks the service of collecting or clearing their out-of-town checks.¹ To this end, section 16

¹ Dr H Parker Willis, formerly Secretary of the Federal Reserve Board, stated concisely the distinction between collecting and clearing checks, as follows "A check is said to be collected when it is sent home to the bank on which it is drawn, and arrangement is made to remit the

of the Federal Reserve Act provides that the Board of Governors of the Federal Reserve System "may at its discretion exercise the functions of a clearing house for . . . federal reserve banks, or may designate a federal reserve bank to exercise such functions, and may also require each such bank to exercise the functions of a clearing house for its member banks." The Act also requires a federal reserve bank to "receive on deposit at par from member banks or from federal reserve banks checks and drafts drawn upon any of its depositors, and when remitted by a federal reserve bank, checks and drafts drawn by any depositor in any other federal reserve bank or member bank upon funds to the credit of said depositor in said reserve bank or member bank."

Member banks are permitted to make reasonable collection and exchange charges, to cover the expenses involved in the collection and remittance of funds. These charges, however, are subject to regulation by the Board of Governors and may not in any case exceed 10 cents per \$100 or fraction thereof, based on the total of checks and drafts presented at any one time. The law specifically provides that no such collection or exchange

proceeds, it is said to be cleared when the bank receiving it offsets it against checks in favor of the institution by which it is to be paid, and then collects or remits only the balance, if any." *The Federal Reserve*, p. 223

charges shall be made against the federal reserve banks.

The problem of establishing a satisfactory clearing and collection system was looked upon as perhaps the most difficult and complicated one confronting the federal reserve authorities in the early days. At first they moved slowly and allowed the different reserve banks a wide discretion in the matter of arrangements for the clearing and collection of checks. Moreover, in most districts the utilization of the clearing and collection system established by the federal reserve banks was optional with member banks. Some joined the system and many did not. It soon became evident that to be really effective a clearing and collection system needed to be approximately uniform in its workings throughout the country and to embrace the largest possible number of banks. Any system in which only a limited number of banks should utilize the federal reserve clearing and collection system and a large number handle their checks in the old way would be unsatisfactory. It would mean a wasteful duplication of machinery analogous to that which exists when a city has two separate telephone services. After nearly two years of experimentation, therefore, the Federal Reserve Board issued regulations for a clearing and collection system, which was put into operation July 15, 1916, in all federal reserve districts—a system whose privileges, under

certain limitations, were extended by an amendatory act of June 21, 1917, to qualifying banks which are not regular members of the federal reserve system.

Present Clearing and Collection System

Briefly summarized the main features of the plan are as follows:

Each federal reserve bank exercises the functions of a clearing house in its district for member banks and for qualified non-member banks, known as "clearing member banks." From such banks in its district the federal reserve bank will receive at par "checks drawn on all member and clearing member banks and on all other non-member banks, which agree to remit at par through the federal reserve bank of their district." Clearing and collection services for member and clearing member banks and for other federal reserve banks are also rendered by each federal reserve bank in the case of checks received from outside the district, which are drawn upon member and clearing member banks of the district and upon all non-member banks of the district, whose checks can be collected at par by the federal reserve bank.

These two provisions make the field of the par clearing and collection system coextensive with the United States and provide a machinery for the handling of checks received from practically all

important points without the district as well as from within. All banks belonging to the clearing system are required to pay without deduction checks drawn upon themselves when presented by a federal reserve bank. On December 31, 1937, there were 12,126 banks on the par list of the federal reserve clearing system, of which 6,341 were member banks and 5,784 non-member banks. These figures included most of the commercial banking resources of the country, since the commercial banks remaining outside the system are for the most part small ones. Of the 2,743 banks which were still refusing to remit at par to the federal reserve banks for checks drawn upon them, 1,442 were situated in eleven Southern States and 1,177 of them were in the West North Central States and the adjoining State of Wisconsin. There were no such banks in the Boston, New York or Philadelphia districts, and there were only two in the Cleveland district.

During the year 1937 the twelve federal reserve banks handled approximately one billion checks with a total value of \$255 billion. Commenting upon similar figures for 1925 the Federal Reserve Board said¹

“ . . . In the ordinary course of their transactions from day to day member banks constantly make deposits to be credited to their reserve accounts

¹ *Annual Report of the Federal Reserve Board for 1925*, p. 23

and make payments to be charged against these accounts. It is far from true, therefore, that member banks' reserve balances with the reserve banks, on which no interest is paid, are idle assets available for no purpose other than to meet legal requirements. On the contrary, in addition to their use as reserves, member bank balances are available as clearing accounts through which member banks can make continuous settlements with other banks in the most expeditious and economical manner."

The old evil previously described¹ of carrying the "float" as a part of a bank's legal reserve is eliminated by a provision to the effect that, although checks received by the federal reserve bank will be immediately credited (subject to final payment) to the bank sending them, the proceeds thereof will not be counted as part of the legal reserve, or become available to meet checks drawn against them, until a sufficient time has elapsed to allow for their actual collection. If the bank sending in checks is not to be permitted to draw against the credit which they create until a sufficient time has elapsed for their collection, obviously the checks should not be charged by the federal reserve bank against the reserve account of the bank upon which they are drawn "until sufficient time has elapsed for the checks to have reached the member bank and for returns in due course to have reached the

¹ *Supra*, pp. 21-2

federal reserve banks.”¹ This is the rule now in force.

If a bank's deposit at the federal reserve bank is insufficient to cover its legal reserve requirement and in addition to meet an adverse balance which arises against it out of clearing operations, it is authorized to ship currency or specie from its own vaults at the expense of its federal reserve bank in order to cover the deficiency. In case of a deficient balance at the federal reserve bank, the member bank, of course, may also be allowed to make up the deficiency by borrowing from the federal reserve bank on its eligible paper.

In handling items for member and clearing member banks, a federal reserve bank acts as agent only.

Under the federal reserve clearing and collection system checks are sent to federal reserve banks and to member and clearing member banks by the most direct routes, and the number of par collection points in the United States is made almost equal to the number of places of any considerable size where commercial banks are situated. The result is that the new system is rapidly doing away with the old evil of routing checks.

The cost of collecting and clearing checks for member and clearing member banks is borne by the federal reserve banks. For some time service

¹ See *Annual Report of the Federal Reserve Board for 1916*, pp. 9-12

charges of so much per item were imposed. But these charges, so far as they relate to cash items, were discontinued by an order of the Federal Reserve Board effective June 15, 1918.¹

Banks which formerly charged their customers excessive rates for collection are being forced by competition or by the Board of Governors' regulations to reduce their charges. They may, as a compensation, require customers to carry larger balances, or they may find it profitable to carry the expense themselves as an item of advertising.

The collection service now covers items other than checks such as promissory notes, trade bills, time drafts, coupons, acceptances and the like, an obvious need if the federal reserve banks are to serve member banks as adequate substitutes for the member banks' former reserve agents. Such items, when payable at places where the federal reserve banks have satisfactory arrangements for collecting checks through banks, are collected by federal reserve banks for member banks without any charge other than an exchange charge that may be made by the collecting bank. Upon items returned unpaid, however, there is imposed a charge of fifteen cents, with the object of preventing the clogging of the federal reserve collection system with dunning drafts.

¹ See *Federal Reserve Bulletin*, May 1, 1918, pp. 371-2

The Interdistrict Settlement Fund

One serious difficulty of the old collection system, as we have seen, was the need of numerous and expensive shipments of currency back and forth over the country as the seasonal stresses in the trade demands for currency shifted from one section to another. The new system eliminates the necessity of a large proportion of these currency shipments and reduces the expense of those shipments which do take place.

The mechanism by which the necessity of a large proportion of these currency shipments is avoided is that of the Interdistrict Settlement Fund, which was formerly known as the Gold Settlement Fund. This Fund, although planned in its essentials early in 1914, was not established until May 27, 1915. The order of the Federal Reserve Board establishing the Fund¹ required each federal reserve bank to forward to the Treasury or the nearest sub-treasury of the United States for credit to the account of the Gold Settlement Fund one million dollars in gold or gold certificates, and in addition an amount at least equal to its indebtedness due to all federal reserve banks. The sums so deposited, which since January 1934, cannot be held in the form of gold coin or gold bullion,² are made payable to the order of the Board of Governors. Each federal reserve

¹ Regulation L, Series of 1915

² *cf. infra*, pp 210-1

bank is required to maintain a balance in the Fund of not less than one million dollars. As a matter of fact, all the banks carry balances many times as large as this minimum Credit on the books of the Fund is counted as a part of a federal reserve bank's legal reserve. The settlement of balances between federal reserve banks is effected daily, through the instrumentality of telegrams sent to the Board of Governors, by transfer of debits and credits on the books of the Interdistrict Settlement Fund.

Through the machinery of this Fund, transfers may be made among all the federal reserve banks, between any federal reserve bank and any federal reserve agent, and between any federal reserve bank or any federal reserve agent and the Treasury of the United States. Also, by means of the Fund and of the other transfer facilities of the federal reserve banks, these banks are now enabled to make telegraphic transfers of funds to all parts of the United States for their members without any charge whatever They have been able, in addition, to inaugurate a system of federal reserve exchange drafts, according to which a member bank may draw special drafts on its federal reserve bank for amounts not exceeding \$5,000, which are receivable for immediate availability at any other federal reserve bank

The Interdistrict Settlement Fund used in effecting payment between federal reserve banks has almost eliminated the necessity of shipping money between federal reserve banks. On December 31, 1937, that Fund amounted to \$2,880.8 million. The transit clearings between federal reserve banks effected through the Interdistrict Settlement Fund during 1937 amounted to \$107 billion.

The federal reserve clearing and collection system is therefore providing a means of eliminating the evils of the old system. Excessive collection charges are rapidly becoming things of the past. Banks are enabled to dispense with the necessity of tying up large sums in scattered deposits with correspondent banks for the purpose of securing for themselves adequate facilities for the collection of checks. These deposits can now be brought home and the funds loaned out. The routing of checks is being eliminated and the "float" is being greatly reduced—all of which are important gains to the public. Heavy currency shipments are avoided, and the expenses of a large part of the currency shipments that do take place are assumed by the federal reserve banks for the member banks.

Foreign Exchange

The federal reserve law has brought about important reforms in the matter of financing our foreign trade. The machinery created by our

twelve federal reserve banks has done much toward developing an American discount market. This development was for a time expedited by the heavy demands for American funds on the part of foreign nations, caused by the World War, by reconstruction needs, and by the disruption of foreign money markets. Much of our foreign trade which was formerly financed through letters of credit, under which sterling bills were drawn, has now for some time been financed directly by means of dollar exchange, namely, bills drawn on banks and business houses in the United States and payable in dollars. Banks are willing to buy such paper drawn in connection with our import and export trade, because there is now a ready market for its sale and rediscount—a market created largely by the federal reserve system. Furthermore, bank acceptances in connection with foreign trade are now legalized in the United States, and importers may arrange with American banks to have their foreign exporters draw bills in dollars directly on the importer's bank in the United States, while foreign importers may open credits in American banks upon which American exporters may draw, the bills being accepted by the American bank and sold in the American discount market.

The foreign exchange division created by the Federal Reserve Board in December 1917, ren-

dered valuable service during the War in stabilizing exchange both with our allies and with neutrals

Under the provisions of the Federal Reserve Act, national banks with a capital and surplus of a million dollars or over may be authorized by the Board of Governors under certain restrictions to establish branches abroad, and many such branches have already been established. Similarly, national banks may invest an amount not exceeding 10 per cent of their capital and surplus in the stock of banks chartered in the United States and principally engaged in international or foreign banking or banking in American dependencies, or engaged in such phases of international or foreign financial operations as may be necessary to facilitate our foreign trade. In this way a number of banks have been established which are owned either wholly or in part by groups of national banks.

In order to encourage American trade and the investment of American capital in foreign enterprises, there was added to the Federal Reserve Act on December 24, 1919, an amendment popularly known as "the Edge amendment."¹ This amendment authorizes the organization of corporations "for the purpose of engaging in international or foreign banking or other international or foreign financial operations." The field of operation includes the insular possessions of the United States.

¹ The amendment comprises section 25a of the Federal Reserve Act.

Corporations organized under this amendment may conduct their business either directly or through the agency, ownership or control of local institutions abroad. They may not carry on any part of their business in the United States except such as, in the judgment of the Board of Governors, shall be incidental to their international or foreign business.

There are two respects in which corporations organized under this Edge amendment may be affiliated with the federal reserve system, although these corporations cannot become regular member banks. In the first place, they operate under the supervision of the Board of Governors which is given by the law large powers of examination and control.¹ In the second place, any national bank may invest to a limited extent in the stock of these corporations.

The Edge amendment has been on the statute books since December 1919. Not until 1927, however, were debentures issued by a corporation organized under the amendment, although as early as February 1921, two international financial cor-

¹ The Federal Reserve Board on March 23, 1920, issued its Regulation K, Series of 1920, governing the organization and operation of corporations organized under the Edge amendment. See also *Annual Report of the Federal Reserve Board for 1924*, pp. 267-72. Regulation K was revised very substantially by the Federal Reserve Board in June 1927 and again amended in August and October 1927. See *Annual Report for 1927*, p. 42, and for a copy of Regulation K, Series of 1930, see *Annual Report of the Federal Reserve Board for 1930*, pp. 263-9.

ACCEPTANCES OUTSTANDING

(END-OF-MONTH FIGURES)

MILLIONS OF DOLLARS

MILLIONS OF DOLL

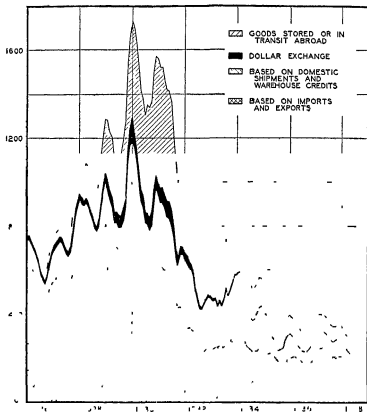


CHART V

Showing the total volume of acceptances outstanding by months, classified according to transactions covered. The use of the New York acceptance market for financing in foreign markets is shown in the top zone. This Chart is copied with some modification from one appearing in the Federal Reserve Bulletin for March 1931, and brought up to date.

porations had been organized under the amendment, one with a capital stock of \$2,100,000 and the other with a capital stock of \$7,000,000.¹ Later another such corporation was organized with a capital stock of \$2,000,000. These corporations have all been liquidated and at the present time the Chase Bank of New York City, authorized to operate under this amendment in 1930 with a capital of \$5,000,000, is the only corporation so operating.

As a result of the World War and of subsequent changes in our banking system, we are now financing directly a large proportion of our foreign trade. This development is shown in Chart V on page 98.

¹ *Annual Report of the Federal Reserve Board for 1927*, p. 42. See also *ibid.*, 1928, p. 36.

CHAPTER IX

THE FEDERAL RESERVE SYSTEM AND THE FEDERAL TREASURY

THE fourth and last of the general defects of the old banking system which were discussed in the early part of this book, was the defective organization from the standpoint of the Federal Treasury. How is the federal reserve system remedying this defect?

The provisions of the Federal Reserve Act concerning the deposit of government funds are in section 15. They are: "The moneys held in the general fund of the Treasury, except the five per centum fund for the redemption of outstanding national-bank notes and the funds provided in this Act for the redemption of federal reserve notes may, upon the direction of the Secretary of the Treasury, be deposited in federal reserve banks, which banks, when required by the Secretary of the Treasury, shall act as fiscal agents of the United States, and the revenues of the government or any part thereof may be deposited in such banks, and disbursements may be made by checks drawn against such deposits.

"No public funds of the Philippine Islands, or of the postal savings,¹ or any government funds,

¹ Under certain conditions, the deposit of postal savings funds is permitted in banks not members of the federal reserve system. See Kemmerer, Edwin W., *Postal Savings*, pp 112-6

shall be deposited in the continental United States in any bank not belonging to the system established by this Act:¹ Provided, however, That nothing in this Act shall be construed to deny the right of the Secretary of the Treasury to use member banks as depositories.

"The federal reserve banks are hereby authorized to act as depositories for and fiscal agents of any National Agricultural Credit Corporation or Federal Intermediate Credit Bank."

Many of the advocates of the federal reserve system believed that this section did not go far enough. They maintained that the practice of depositing government funds in thousands of banks scattered over the country was unsound and expensive, and wished the law to make the federal reserve banks the depositories of practically all general funds, dispensing with the use of individual banks as depositories and ultimately with the independent treasury system. It was felt by many, however, that the immediate adoption of such a plan would be moving too rapidly and that it was undesirable to limit so narrowly the Secretary of the Treasury, who is responsible for the safety of government funds. The extent to which the Secretary of the Treasury should keep general funds in the federal reserve banks, in member banks, and in the sub-

¹ But see *infra*, pp 104-5

treasuries was, therefore, left to his discretion. There appears, however, to have been a widespread belief that the federal reserve banks would become to an increasing extent the depositories of federal funds, and that national banks and the sub-treasuries would, as time went on, receive an ever-declining proportion of these funds.

There is much to be said in favor of the proposition that banks desiring government funds should present their claims for advances to their respective federal reserve banks, and receive such funds only by the ordinary method of borrowing. This would simplify the problem, remove from the Secretary of the Treasury the onerous task of apportioning funds among thousands of individual banks, and discourage the banks from depending upon the Secretary of the Treasury as a sort of grandfather for aid in time of need. The federal reserve bank, which is having continual dealings with all its member banks, would presumably be in a better position to judge the comparative needs of different banks than would the Secretary of the Treasury. Moreover, how can a federal reserve bank by advancing discount rates, contracting loans and making sales in the open market, place adequate pressure on member banks to conserve their strength for times of need, if the member banks can "go around" the federal reserve bank and the Board of

Governors and obtain funds directly from the Secretary of the Treasury, and if the government conducts directly with the public extensive cash operations by means of the cash which it carries in its own vaults¹

For these and other reasons it was expected that the Secretary of the Treasury, in the exercise of the discretion granted him by the law, would deposit the government funds to a large and increasing degree in federal reserve banks. Events pointed clearly in this direction prior to our entrance into the War. Governor Strong of the New York Federal Reserve Bank wrote me. "The first deposit of government funds made by the Treasury with the federal reserve banks was on September 4, 1915, when certain special deposits were made in a number of banks. Later, arrangements were made to have the collectors of customs and collectors of internal revenues in the twelve federal reserve bank cities deposit all of their funds in the federal reserve banks and as a matter of fact, for a long period prior to the passage of the Bond Act of April 24, 1917, which altered the status of public deposits, the federal reserve banks had been receiving the principal revenues of the government outside of postal funds and had been paying a very large proportion of government checks and warrants. The

¹ cf *infra*, pp 263-9

limitation of this fiscal agency service in the collection of revenues and payment of checks to the twelve federal reserve bank cities was, of course, due to the inconvenience of extending these operations to places where federal reserve banks had not yet established branches. The plan therefore of actively employing the federal reserve banks as fiscal agents had been put into operation some time before the first bond bill was passed and was an important and very active part of the work of the reserve banks almost immediately after the arrangement was established."

The abnormal conditions, however, created by the World War set up obstacles in the way of the government's discontinuing the use of individual banks as depositaries of government funds. During the early days of the War the heavy demands for funds in America to meet obligations due abroad and the frenzied condition of the money markets throughout the world prevented the inauguration of a policy of withdrawing government funds from individual banks and depositing them in the federal reserve banks. Later the heavy buying in this country by European belligerents discouraged this policy. It was not a time for withdrawing large sums from individual banks. Finally our own entrance into the War and the floating of our huge Liberty loans rendered a transfer of this kind out

of the question. In the interest of reducing to a minimum the disturbance to the money market involved in the floating of these loans, the government wisely adopted the policy of keeping the funds widely scattered and, to as large an extent as practicable, in the banks of the communities where they were received. The result was that during 1917 and 1918 there were more government funds in individual banks than at any previous period in our history. The deposits of government funds, moreover, were then not limited as they are today, to banks that are members of the federal reserve system, since the law under which government bonds and certificates of indebtedness were issued after we entered the War provided for the deposit of their proceeds in qualified national banks and state banks and trust companies against certain approved collateral. Numerous non-member banks then qualified as depositaries in connection with Liberty loans and issues of certificates of indebtedness.

An idea of the present situation as regards the deposit of federal government funds to the credit of the Treasurer of the United States and of other federal government officers may be obtained from the following figures as of June 30, 1937:¹

¹ *Annual Report of the Secretary of the Treasury for 1937*, p. 105

DEPOSITARIES <i>Kind</i>	AMOUNT OF DEPOSITS <i>(thousands)</i>
Federal reserve banks	\$92,808
Federal reserve member bank depositaries	40,343
Special depositaries ¹	649,460
Insular and territorial depositaries (including Philippine treasury)	6,703
Foreign depositaries	3,137
	<hr/> \$792,451

An act was approved May 7, 1928, which authorized the Secretary of the Treasury to designate as depositaries of public moneys, state banks and trust companies which are members of the federal reserve system, and to require such banks to act as fiscal agents of the government. This act placed member state banks and trust companies upon a parity with national banks with respect to all government deposits ²

Under the terms of the First Liberty Bond Act of 1917 and subsequent legislation, member depositary banks were not required to maintain reserves against government deposits, but the Banking Act of 1935 now compels the banks to

¹ Includes 1,513 national banks and 1,070 state banks and trust companies, of which 1,309 held deposits on June 30, 1937.

² See *Annual Report of the Secretary of the Treasury for 1928*, p. III, also paragraph 14 of section 9 of the Federal Reserve Act

keep the same percentage reserve against government deposits as against deposits of individuals and corporations.

Beginning January 1, 1913, government depositaries, with the exception of the federal reserve banks, were required to pay the government interest on daily balances. This practice was discontinued by the Banking Act of 1933 (section 11b), which provides that, with certain exceptions, no member bank shall pay interest on demand deposits. Since all government deposits maintained with depositaries under the supervision of the Treasury are demand deposits, the collection of interest upon such government deposits terminated June 30, 1933, except in the case of certain special deposits.¹

A large number of depositary banks failed during the banking crisis of early 1933 and as of March 16 of that year approximately one-third of the regular depositaries were unlicensed. Thanks largely to the fact that these government deposits were secured by the pledge of collateral in the hands of the government, the Secretary of the Treasury was able to say in his report for the fiscal year 1934: "To date, the United States has not sustained any losses through the failure of depositary banks."

¹ See *Annual Report of the Secretary of the Treasury for 1933*, p. 70, and *ibid*, 1934, p. 73.

A provision in the Appropriation Act of May 29, 1920, abolished the sub-treasuries from and after July 1, 1921. Several of them were closed before that date. The law authorized the Secretary of the Treasury to transfer any or all of the duties of the sub-treasuries to the Treasurer of the United States, or to the mints or assay offices, or to utilize the federal reserve banks for the purpose of performing any or all of such duties and functions. Pursuant to regulations of the Secretary of the Treasury under the authority of this Act, all the functions and duties, with two exceptions, previously performed by the nine sub-treasuries were transferred to the federal reserve banks. The two exceptions were the issuance of gold order certificates against gold deposits—a function that was performed by the Treasurer of the United States until the issuance of this type of gold certificates was discontinued in 1933—and the keeping in custody of certain reserve and trust funds which, except for the silver held against silver certificates, are no longer of much importance.

Since under the legislation of 1933¹ and early 1934, which outlawed the circulation and even the holding of gold coin, gold bullion (except under special license) and gold certificates by the American public under heavy penalty and took

¹ See section 111n of the Federal Reserve Act added by the Emergency Banking Act of March 9, 1933

over into its own vaults all the country's monetary gold stock, the United States government has been the sole owner of the nation's monetary gold.¹ The federal reserve banks, in return for the gold they turned over to the Treasury, may receive a new form of gold certificate to be used for reserve purposes. These certificates may be held only by federal reserve banks and the Treasury. In practice they are often held in the Treasury for the federal reserve banks and federal reserve agents. They are redeemable in gold by the government for the federal reserve banks alone, and only "at such times and in such amounts as, in the judgment of the Secretary of the Treasury, are necessary to maintain the equal purchasing power of every kind of currency of the United States."² At the present time when certificates are redeemed by the Treasury to provide gold for export, they are redeemed at the rate of 13.71 grains of gold to the dollar. This is the gold equivalent of our present dollar and is equal to 59.06 cents of our old gold dollar. The President of the United States, however, has au-

¹ The government has complete power, through administrative regulation, to control all the gold of the country, most of which it owns. According to the Gold Reserve Act of 1934 (section 3), "Gold in any form may be acquired, transported, melted or treated, imported, exported, or earmarked or held in custody for foreign or domestic account (except on behalf of the United States) only to the extent permitted by, and subject to the conditions prescribed in, or pursuant to, such regulation," as the Secretary of the Treasury shall issue with the approval of the President

² Gold Reserve Act of 1934, section 6

thority until June 30, 1939, under the so-called Thomas amendment of May 12, 1933, and subsequent legislation, to fix the weight of gold that shall constitute a dollar at any point he may choose between the equivalent of 50 cents and 60 cents of our former gold dollar and he may change this weight as often as he may desire.

When the government forcibly took over the gold owned by the people and the banks, it paid for it dollar for dollar in inconvertible paper dollars which it has since, administratively and at least temporarily, stabilized at the equivalent of 59.06 cents of our former gold dollar. This gave the government a profit of approximately 69 per cent on each dollar of gold taken over, because the old dollar of 23.22 grains of fine gold is the equivalent of \$1.693 of the new bullion dollar of 13 71 grains. In this way the government has realized a so-called "revalorization profit"¹ of approximately \$2,808 million and of this a sum of \$1,800 million is now held in its "exchange stabilization fund,"² and the

¹ Out of this "revaluation profit" or "increment resulting from a reduction in weight of gold dollar," as it is officially called, \$674,625,630 were appropriated by the Treasury Department to pay off the 2% Consols of 1930 on July 1, 1935 and the 2% Panama Canal loans of 1916-36 and of 1918-38 on August 1, 1935, and thereby provide for the retirement of the outstanding national bank note circulation

² The stabilization fund is under the exclusive control of the Secretary of the Treasury with the approval of the President, "whose decisions shall be final and not subject to review by any other officer of the United States" The law gives wide discretion as to the purposes for which the fund may be used *cf.* Gold Reserve Act of 1934, section 10b *infra*, pp. 213-4

balance was turned over to the general funds of the Treasury.

Fiscal Agency Services Rendered by Federal Reserve System While Nation Was Engaged in World War

Everyone knows what happened in regard to receipts and expenditures of public moneys under the pressure of the World War during the years 1917-19. The figures jumped to proportions never dreamed of before. The gross interest-bearing public debt in 1916 was approximately \$1,000 million, and in 1919 it had risen to over \$25,000 million, internal revenue receipts increased from \$513 million in 1916 to over \$3,800 million in 1919, and to \$5,400 million in 1920, ordinary government disbursements rose from \$724 million in 1916 to over \$15,000 million in 1919. Liberty bond issues and certificate of indebtedness issues combined amounted to over \$65,000 million up to October 31, 1920. The total amount of money in circulation in the country in 1919 was only between \$4,900 million and \$5,400 million, and the federal government was receiving over its own counters in one year five to six times this sum. It could not withhold this money from circulation. Therefore, as fast as the government received the money, steps were taken to put it back into circulation and to avoid withdrawing it from circulation again sooner than necessary. The enormous

fiscal operations of the government during this period were very largely handled by the federal reserve banks. During the year 1919 there passed through the federal reserve banks and their branches approximately thirty-three million government checks, amounting to \$14,500 million.

Deposits were kept as nearly as possible in the places where the funds were received by the government. The work of handling this fell largely on the twelve federal reserve banks. They were asked to select the banks that were to handle the government funds, to allot deposits to the banks in proper amounts, to examine the collateral that such banks offered, to care for this collateral, to withdraw funds from the banks as they were needed by the government and to allot new funds.

Then the government, in trying to avoid money market disturbances, adopted a number of other devices. For example, in order to minimize the disturbances resulting from the withdrawals of funds representing payments of income taxes and excess profits taxes, arrangements were made in New York whereby the seven collectors of internal revenue in the district deposited their receipts in cash, checks and certificates of indebtedness with the federal reserve bank, and then the federal reserve bank took all the checks which were drawn on any of the depositary banks in the district, sorted them out and deposited them right back in

the depository bank from which they came. When it received from the collector of internal revenue a bunch of checks, coming, say, from Rochester, it sorted out those checks and sent them back for deposit in the proper banks in Rochester.

Another device, and a most important one, used to prevent disturbances in the money market was that of issuing certificates of indebtedness. These were short-time government loans paying low rates of interest. There were ninety-five series in all issued up to October 31, 1922, and the amounts of these issues totaled \$54.7 billion. These certificates were issued mostly in anticipation of government loans and in anticipation of receipts from income and excess profits taxes.

Let us take the first. The object of issuing certificates in anticipation of Liberty loans was twofold. In the first place, the government needed the money and needed it promptly. It took time to get money in from Liberty bonds, and so in anticipation of these funds the government borrowed money by the issuance of these short-time certificates with the expectation of paying back the money so borrowed as soon as the Liberty bonds were sold. It thus got money months in advance of its receipts from Liberty bond sales and paid off the certificates when the Liberty bond money came in. In the second place, by this procedure the government could prevent Liberty bond sales from

greatly disturbing the money market. If it had thrown on the market billions of dollars in Liberty bonds and had received payment for them in a short period of time, it would have tied up the money market. Here was a procedure whereby these receipts were spread out over a considerable period of time.

The government received its money when it issued these certificates and then by the time the Liberty bond receipts began to come in the certificates were due. The government had to pay the public on the certificates at the same time the public was to pay the government for the Liberty bonds. Government receipts and disbursements were thus synchronized and we avoided disturbances that would otherwise have arisen from the periodical withdrawing of funds and the periodical pumping of other funds into circulation. The same principle was applied in connection with the tax certificates. People knowing that they would have taxes due in June would buy these certificates, receiving on them a low rate of interest, months ahead of the time the taxes were due. The purchaser of the certificates could pay his taxes when they fell due by means of the certificates; or, if he held the certificates solely as an investment, the government would pay off the certificates at the time the public was paying its taxes, the one cancelling the other. One of the finest pieces of

work that the government did was the synchronizing of these disbursements and receipts during the War so that one tended to cancel the other. These heavy transactions were handled largely by federal reserve banks.

Other tasks entrusted to the federal reserve banks were the sale of the certificates of indebtedness, their allotment to the different banks subscribing for them, and the receipt and deposit of the proceeds of the sales. The great work of floating the Liberty loans fell in no small degree upon the twelve federal reserve banks. They were the first institutions called in to help organize this task. It was the federal reserve banks that were the headquarters of the publicity campaigns. They distributed and converted the bonds to a very large extent, handled the interest payments and made the advances to the banks in the way of loans, which made possible the buying of so many of the bonds.

The figures of Liberty loan transactions went to heights of which most people had no idea. The total volume of bonds exchanged during 1918 by the New York Federal Reserve Bank alone was over \$1,100 million, and the number of pieces handled was over four million received and one million six hundred thousand paid out.

There are a number of other ways in which the federal reserve banks assisted the government as

fiscal agents. There was the work of the Capital Issues Committee and of the War Finance Corporation. Federal reserve banks played an important part in rendering fiscal aid to the government in advancing money. More than once a federal reserve bank found that the government's account was short—in the language of the street there was a government overdraft—and the government met that overdraft by a temporary certificate constituting a loan for a day or two. In the New York Federal Reserve Bank alone in one year the total amount of those short-time certificates issued was \$3,000 million. The banks helped the government also in the sale of the war savings stamps and thrift stamps. In the earlier days that work was left to other hands, but in later days it was entrusted to the federal reserve banks.

The Secretary of the Treasury said in his report of 1917. "The federal reserve system has been of incalculable value during this period of war financing on the most extensive scale ever undertaken by any nation in the history of the world. It would have been impossible to carry through these unprecedented financial operations under our old banking system. . . . Great credit is due to the 12 federal reserve banks for their broad grasp of the situation and their intelligent and comprehensive cooperation."

One shudders when he thinks what might have happened if the War had found us with our former decentralized and antiquated banking system. Think of pouring the crisis of 1914-18 into bottles that broke with the crisis of 1907!



CHAPTER X

THE FEDERAL RESERVE SYSTEM FROM THE END OF THE WAR TO THE BREAKDOWN OF THE GOLD STANDARD IN ENGLAND

THE forepart of this book dealt with the principal defects of the American banking system as it existed in 1913, and the last four chapters have shown how the federal reserve system has been remedying these defects. For a generation and more prior to 1913 the intelligent American public was aware of the principal deficiencies of our banking system during periods of financial crises like those of 1893-94 and 1907-08—periods in which these deficiencies stood forth glaringly—but in prosperous times little attention was paid to them. Our banking system was often spoken of as a “fair-weather system.” The great holes in its roof were not serious so long as there was no rain. It was the storm of 1907 that finally convinced the American people that the roof must be thoroughly repaired. The financial storms of 1929-38 gave rise to many calls for additional repairs.

These years witnessed one of the severest economic crises—or series of crises—which the world has ever seen. From a great height of prosperity in 1929, our own country suddenly dropped to unprecedented depths of economic depression by the sum-

mer of 1932. Such a crisis and depression would put a heavy strain upon any banking system. It is in times like these that financial institutions of all kinds are put to the supreme test. How has the federal reserve system met the strain of this crisis? Our answer to this question will be chronologically divided into two parts. This chapter will cover the period down to the breakdown of the gold standard in Great Britain in 1931, and the following four chapters will deal with the period from 1931 to the present time.

It is not the object of the following pages to discuss controversial questions of federal reserve policy. Whether or not conditions could have been better than they have been since the World War is a question of great importance, but it is not the question that chiefly concerns us here. Our problem is to narrate and explain the policies of the Federal Reserve Board and of the several federal reserve banks rather than to evaluate them.

I

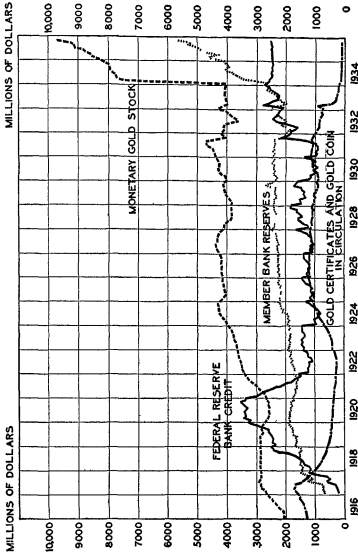
Gold and Federal Reserve Credit

Federal reserve credit, broadly speaking, is put to two uses. First, it may be used to create member bank balances, which constitute the reserves for member bank credit. The granting of federal reserve credit obviously increases these balances

just as effectively as does the deposit of money in the federal reserve banks to the credit of member banks. In the second place, federal reserve credit may go into circulation in the form of federal reserve notes and federal reserve bank notes and, when this is done, the new credit does not perform the bank reserve function at the same time because these notes in the tills of member banks cannot be counted by them as legal reserves.

The changes in member bank reserve balances, federal reserve credit outstanding, monetary gold stock, and gold and gold certificates in circulation—the items relating to the primary reserve strength of the federal reserve system—may be seen from Chart VI. From it several conclusions can be drawn. In the first place, a well defined seasonal elasticity is apparent in the federal reserve credit outstanding down through 1933. This is particularly evident beginning with 1922—prior to that year it was concealed by the cyclical sweep of the curve. This response to the seasonal demands of business has already been discussed, and is related in the main to seasonal currency requirements.¹

¹ The reader will find suggestive a comparison of the seasonal variations here apparent in federal reserve credit outstanding with the seasonal variation shown in Canadian bank note circulation and national bank note circulation, *supra*, p. 16, and also with the seasonal variation shown in federal reserve notes in circulation, *supra*, p. 69



Mobilization of Gold in Reserve Banks

It has been explained in Chapter IX how the federal reserve system helped to meet the huge War financing requirements of the federal government beginning in 1917. Mobilization of the gold reserves of the country in federal reserve banks had been accomplished in part under terms of the original Federal Reserve Act, but this mobilization was made more complete by the amendment of 1917 which required member banks to keep all of their legal reserves on deposit with their respective federal reserve banks.¹ As is evident from the chart, further mobilization of the gold strength of the country was accomplished at that time by the substantial withdrawal of gold and gold certificates from circulation. In part the rise in federal reserve credit represented a rise in circulation of federal reserve notes substituted for gold certificates.

During the period of the Great War and the two years immediately following the Armistice, the world gave up the gold standard and went over to paper money standards. Gold coin was everywhere withdrawn from circulation and the world's monetary gold was largely piled up in the vaults of

¹ This amendment is discussed in a previous section, *supra*, pp. 41-3. The amendment was recommended by the Federal Reserve Board in order to give more effective control over gold movements. *Annual Report of the Federal Reserve Board for 1916*, pp. 22-9.

a few central banks, where it was not used. Enormous quantities of this gold, coming to the United States from Europe in the purchase of War supplies and in the transfer of capital fleeing here for safety, accumulated in our federal reserve banks.¹ From June 1914 to June 1920, our stock of monetary gold in the United States increased by 61 per cent. In time of war, when nations are fighting for their existence, they need food, clothing, armament and munitions much more than gold. A gold standard at that time was a luxury that the belligerent countries of Europe felt they could not afford. One result of this situation was that the value of gold throughout the world declined enormously, in other words, prices of commodities when expressed in gold greatly increased. Our American wholesale prices, for example, more than doubled between 1914 and 1920, and the American gold dollar lost about 60 per cent of its pre-War value, or purchasing power.

With the close of the War, however, the world was determined to return to the gold standard as soon as possible after its long and painful experiences with managed currency. This obviously meant a large increase in the demand for gold and, in consequence, a great increase in the value of gold in terms of goods—in other words, a great fall in commodity prices. There would have been noth-

¹ cf. *Annual Report of the Federal Reserve Board for 1916*, pp. 1-3

ing like enough gold to go around if the world were to return to the gold standard at the high American price level of 1920. In late 1920 and early 1921 the price collapse expected by many economists came, and in one year our American wholesale commodity price level dropped about 44 per cent, representing an increase of approximately 80 per cent in the value of gold.

*Gold Movements, Federal Reserve Credit and
Money Rates*

During the period of our participation in the War (1917-18), the monetary gold stock of the country remained at a relatively stable level, as the chart shows. This was due chiefly to the gold embargo. The floating of War loans was facilitated by the enormous expansion in federal reserve credit. In part this expansion of federal reserve credit took the form of federal reserve notes, replacing the gold certificates in circulation; and in part it took the form of increased member bank reserve balances which formed the basis for a large increase of member bank credit. From the middle of 1919, when the embargo on the exportation of gold was removed,¹ until late in the spring of 1920, a large outflow of gold occurred. In this period, as the

¹ *Annual Report of the Federal Reserve Board for 1919*, p. 50.

chart shows, the expansion of federal reserve credit served to "cushion" the effect upon the money market of this gold outflow. Such a substitution of federal reserve credit for gold in the credit base of the country prevented the extraordinary contraction of member bank credit which would otherwise have been caused by this large gold withdrawal over a relatively short period of time. While the outflow of gold did induce rising money rates, it did not cause a scramble for reserves and particularly for gold by banks throughout the country, as would have occurred before the establishment of the federal reserve system. As the gold flowed out of the country, member bank reserve balances tended to be reduced by the amount of gold exported. To replenish their reserves the banks had to rediscount with the federal reserve banks, in the absence of open-market purchases by the federal reserve banks on a sufficiently large scale to fill the gap made by the outward gold movement. This tended to tighten the money market and force orderly liquidation rather than the sudden panicky liquidation which might have resulted in the absence of the available resort to federal reserve credit.¹ The test of expansibility of federal reserve credit was clearly met during this period.

¹ *Annual Report of the Federal Reserve Board for 1923*, p. 17

*Relationship between Gold Movements, Fluctuations
in Federal Reserve Credit, and
Money in Circulation*

The federal reserve system, having demonstrated its ability to expand under these two sets of conditions, was now called upon to demonstrate its capacity for contraction during recessions of business activity and liquidation.¹ During 1920 federal reserve credit continued to expand, but at high rates of rediscount. The object was to meet over-expanded debtor conditions in the face of rapid business recession, and of "frozen" credits on large unsold commodity stocks. This credit accommodation served to tide over short-term indebtedness until such time as stocks of goods could be moved at lowered prices. By the end of 1920 liquidation set in very rapidly, resulting in the quick retirement of federal reserve credit. In part, this retirement of federal reserve credit was made possible by the inflow of gold which began at this time. In other words, member banks were using the imported gold to pay off their indebtedness to the federal reserve banks, rather than to increase their reserve deposits. The decline in federal reserve credit, however, was more rapid than the gold inflow. Thus, with declining business activity, the

¹See *Annual Report of the Federal Reserve Board for 1919*, p. 67

contractibility of federal reserve credit was established.

As may be seen from Chart VI, the inward movement of gold during the years 1922-25 was in the main equivalent to the increase in gold certificates and gold coin in circulation. In other words, this gold coming into the country went into circulation as money instead of being used as member bank reserve deposits. In the meantime, the volume of federal reserve notes in circulation declined about as much as the circulation of gold certificates and gold coin increased, leaving the total amount of money in circulation approximately as before. The retirement of federal reserve notes is reflected in part by a small decline in total federal reserve credit outstanding from 1922 to 1924, but, for the most part, the federal reserve credit released by the retirement of federal reserve notes went into member bank reserve balances. This explains the upward movement of member bank reserves from 1922 to 1925 in the face of a declining volume of federal reserve credit outstanding.

Again, from the middle of 1927 until the middle of 1928, there occurred an outflow of gold, caused chiefly by the rapid return of the world to the gold standard. At this particular time gold was being sent for the most part to South American countries. This outflow of gold took place without affecting any corresponding decline in member

bank reserves, because the member banks substituted federal reserve credit for the gold, for, as a member bank's balances were drawn down because of gold exports, they were again replenished by the member bank either borrowing from the federal reserve bank or selling it government securities. During the latter half of 1927, as will be seen, the member banks replaced the gold withdrawals by the second method, inasmuch as during that time the federal reserve banks were increasing their open-market purchases of United States government securities. During the remaining part of this period of gold outflow, however, the member banks were forced to replenish their reserves at relatively high cost by rediscounting with their federal reserve banks, for not only were the federal reserve banks not increasing their open-market purchases of United States government securities, but they were rapidly reducing their portfolio of such securities.

The return flow of gold to this country from the end of 1928 to the fall of 1931 did not go to inflate member bank reserve deposits, but was offset in large part by retirement of federal reserve credit, and during 1930 a large amount went into circulation in the form of gold certificates.¹ With the ex-

¹ This gold movement was caused largely by the economic depression in raw material producing countries, like Japan, Brazil, Argentina and other Latin American countries *Annual Report of the Federal Reserve Board for 1930*, p. 6

ception of a brief but conspicuous rise in the autumn of 1929, member bank reserve deposits remained at a fairly constant level from the beginning of 1928 until the autumn of 1931, when they dropped off sharply.¹ When in the fall of 1931, approximately two years after the outbreak of the world economic crisis, about \$725 million net of gold was withdrawn from this country in about six weeks' time, we experienced no disturbance of the gold standard. And, even though this was accompanied by domestic hoarding of paper money on a large scale, bank reserves were adequately replenished by expanding federal reserve credit. A comparable situation before the federal reserve system was established would probably have caused a money panic, but, under the federal reserve system, it was possible to replace the outflowing gold and the hoarded currency by the expansion of federal reserve credit. That this occurred is clearly seen from Chart VI on page 121.

From the point of view of the factors underlying member bank reserves, therefore, the federal reserve system at this critical period operated as a strong stabilizing influence and made possible the maintenance of a free gold market in the United States in the face of unusually disturbed world conditions.

¹ For a detailed exposition of the complex factors involved, see *The Course and Phases of the World Economic Depression*, revised edition, published by the League of Nations, Geneva, 1931.

II

Member Bank Credit Expansion and Velocity of Deposits

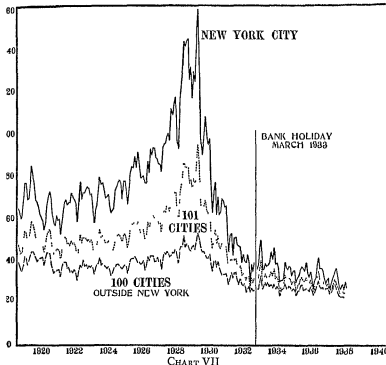
While relative stability was preserved in the reserve funds of the money market, member bank credit, nevertheless, during the period from 1922 to 1931 showed certain unfortunate tendencies. It experienced periods of great expansion followed by periods of slow and stubborn liquidation, resulting in part from widespread bank failures. How could it happen that the primary reserve funds of the money market remained stable while member bank credits were not? The answer is given by the two charts on the following pages. The explanation is partly the great expansion which took place in time deposits, but principally the enormous rise in the velocity of deposits.

Member Bank Credit and Time Deposits

Inasmuch as, during these years after 1917, only a 3 per cent reserve was required against time deposits, as contrasted with 7 to 13 per cent reserves against demand deposits, there was a tendency to transfer to the time-deposit category funds which formerly were, and in most cases probably should have remained, in the demand deposit category. In this way, even though the primary reserve funds of the money market expanded but moderately

during the period,¹ and probably no more than sufficient to compensate for the population growth of the country, still there occurred periods of immoderate inflation and deflation in security, real

ANNUAL RATE OF TURNOVER OF DEMAND DEPOSITS, 1919-1938



Showing the huge rise in deposit turnover during 1928-29. Data were computed by the Federal Reserve Bank of New York

¹The rapid rise in member bank reserves shown in Chart VI for the years 1917-20 was caused in part by increase in membership and the change in the law made by the amendment of 1917, although part of the increase, particularly in 1919, was due to inflation as already explained.

estate and commodity prices, and member bank credit expanded from approximately \$20 billion in 1922 to over \$30 billion in 1931—an increase of approximately 50 per cent

As may be seen from Chart VIII, the stratum of time deposits was pushing up against demand de-

MONEY AND MEMBER BANK DEPOSITS (CALL DATE FIGURES)

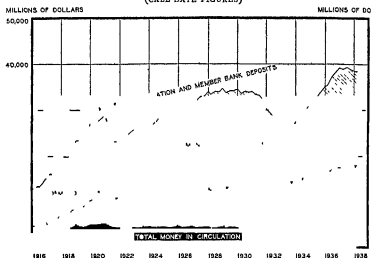


CHART VIII

Showing the expansion of member bank credit

Demand deposits-adjusted include all member demand deposits other than interbank United States government deposits, less cash items reported as in process of collection. Prior to December 31, 1935, cash items on hand but not in process of collection were included. According to the Board of Governors, the volume of demand deposits-adjusted "may be said to represent in a general way the cash resources of the community placed with banks and readily available for use." The Board has recently calculated demand deposits-adjusted of member banks for all call dates since June 1921, and are shown on the chart. For the years prior to June 1921, the less significant figure net demand deposits have been used.

posits, constituting an ever-increasing proportion of total deposit liabilities; and thus representing a continuous process of diminishing the reserve strength of the member banks. Furthermore, an undermining of the liquidity of member bank credit occurred during this period as the banks became involved more and more in the long-term capital market, through direct security loans, operating in their own bond departments or through affiliated security houses. To an ever-increasing extent bank credit was used to finance the distribution of securities, and the resulting inflation was of much the same character as the wartime inflation which, as we have seen, was based upon the marketing of United States government securities.¹

Velocity of Deposits

In the main, however, the great bank credit expansion of the years 1928 and 1929 is related to the phenomenon of deposit turnover; because this great increase in velocity of deposits represented an increased efficiency in our deposit currency, which circulated through bank checks, and by which something like 90 per cent of our total business in the United States is normally done. Just as the efficiency of a freight car depends not only upon the size of the car but also upon the speed at which

¹ See Kemmerer, Edwin W., *High Prices and Deflation*, pp 14-30

it moves, so likewise does the efficiency of money in circulation—namely, the amount of money work that a given quantity of money can do in a given time—depend upon the speed at which the money moves—in other words, the number of times the money turns over or passes from hand to hand in business transactions during the period. The same is true of bank deposits. The average amount of bank deposits subject to check held during the year in the banks of one hundred and one leading cities of the United States is known, also the total volume of checks of individual depositors received by these banks in the course of each year is known. The volume of checks so received represents roughly the amount of transactions performed by check during the year. If we divide the total amount of check business thus performed in the course of a year by the average amount of deposits subject to check held by the banks during the year, we have the so-called “rate of deposit turnover” or deposit circulation. This is also termed velocity of deposits. In Chart VII the velocity of deposits in New York City is shown separately from that of the other one hundred leading cities. Also, a weighted average of the velocity for New York City and for the other one hundred leading cities is indicated.

Comparing the fluctuations in member bank deposits with the fluctuations in their annual turnover or velocity, it seems apparent that the expan-

sion of the period 1919-20 was related chiefly to the volume of bank credit, while the expansion of the period 1928-29 was related chiefly to changes in deposit turnover. Deposit turnover in the banks of one hundred leading cities increased from an average of 40.8 times a year in 1927 to an average of 47.1 times in 1929; but the increase in turnover in New York City was far greater both absolutely and relatively. In New York City the deposit turnover increased from an annual average of 90.3 in 1927 to one of 131.7 in 1929, and this velocity reached a peak of 158.4 in October 1929. Here was an increase in the average rate of deposit turnover for New York City of 46 per cent in two years' time. For the most part this great increase in velocity of deposits was caused by stock market operations, and represented the rapid transfer of funds from party to party in the securities market. During this period there was an enormous expansion of bank loans on securities, and more particularly of brokers' loans in the open market.

The practice of making open-market loans to brokers "for the account of others" made it possible to effect a great expansion of credit without a corresponding increase in bank deposits because the bank acted merely as agent in the making of such loans.¹ This expansion of brokers' loans "for the account of others" constituted an ever-present

¹ See *Annual Report of the Federal Reserve Board for 1928*, pp. 2-10.

threat to the reserve position of the New York City banks because, whenever these outside lending individuals or corporations decided to withdraw their funds from the call-loan market, it became necessary for the New York City banks to "assume" the loans or face a sudden and drastic stock market crash.¹ A breakdown in the autumn of 1929 was prevented only by the fact that the New York City banks did absorb these loans as rapidly as possible, so that call loans were never "frozen" during this period. The New York City banks, in turn, were enabled to do this only by reason of the fact that they could replenish their reserves with the federal reserve bank by rediscounting. One of the greatest and most drastic stock market liquidations in the history of the money market was thus survived without the credit breakdown which accompanied most panics before the federal reserve system.

III

Discount Rates and Open-market Operations

Although the federal reserve system was eminently successful during this period in maintaining a free gold market and in stabilizing primary reserves, the period cannot be said to have been a happy one. The claim of many of the monetary

¹ cf. *Annual Report of the Federal Reserve Board for 1929*, pp. 9-12, and *Federal Reserve Bulletin*, November 1929, p. 703, and *ibid.*, December 1929, pp. 755-6

reformers that the severity of the business cycle would be lessened was not realized. The economic depression of 1920-21 was accompanied by widespread suffering, and the great depression beginning in late 1929 by even greater and more general suffering. It is true that the suffering was not aggravated by money panics, but the downward sweep after the summer of 1929 of the index of industrial production is eloquent as an indicator of the extent to which unemployment and distress pervaded the country. The question may be asked "What *can* central bank policy do in the face of such conditions?" The answer to this question is difficult; but an easier one to answer is "What has federal reserve policy done about it in this country?"

Discount Policy

Before the World War, it was generally assumed that changes in discount rates by central banks constituted the principal method of controlling the money market; and in the London money market in particular, attention had been focused for many years upon the use of the discount rate to maintain stability. It was natural, therefore, that during the early years of the federal reserve system the discount rate was in the foreground in all discussions of the policies of the federal reserve banks. At the time of the abrupt deflation in 1920-21, it was thought by many that the discount rate

was the principal factor in federal reserve control of the market.¹ However that may be, it will be seen from the discussion which follows that during the period since 1922 the federal reserve authorities have placed their chief reliance in open-market operations.

Chart IX compares the fluctuations in (1) the re-discount rate of the Federal Reserve Bank of New York, (2) the open-market rate on 4-6 months commercial paper, and (3) the "customer-bank" rate charged by commercial banks in New York City.²

Low discount rates compared with open-market rates on commercial paper, as well as compared with the average rates charged customers of New York City banks, appear to have been a fairly consistent practice not only during the War years, 1917-18, but also during most of the period here under discussion. Although the New York Federal

¹ cf. Beckhart, B H, *Discount Policy of the Federal Reserve System*

² For a more complete study of the "customer-bank" money market see Riefler, W W, *Money Rates and Money Markets in the United States*, Chaps iv and v

The customer-bank rates are those charged by reporting banks to their own customers as distinguished from the open-market rates (i.e., the 4-6 months commercial paper rates), and as distinguished from the discount rate of the Federal Reserve Bank of New York which is the rate it charges to member banks. The customer-bank rates are averages based on rates reported for three types of customers' loans—commercial loans, and demand, and time loans on securities. The method of computing the averages takes into account (a) the relative importance of each of these three types of loans and (b) the relative importance of each reporting bank, as measured by total loans. cf. *Annual Report of the Federal Reserve Board for 1930* p. 83.

DISCOUNT RATE OF FEDERAL RESERVE BANK OF NEW YORK AND MARKET RATES

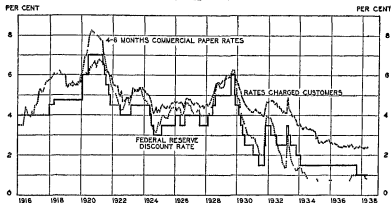


CHART IX

The data on the discount rate of the Federal Reserve Bank of New York were taken from the Annual Reports of the Federal Reserve Board, passim. Data on rates charged customers were taken from Riefler, W. W., Money Rates and Money Markets in the United States, pp. 232-6, and Federal Reserve Bulletin, passim. The data on 4-6 months commercial paper rates were taken from The Review of Economic Statistics, 1919, p. 94, 1921, p. 5, 1923, p. 152, from the Annual Reports of the Federal Reserve Board, passim, and from the Federal Reserve Bulletin, passim.

FEDERAL RESERVE BANK OF NEW YORK ACCEPTANCE RATE AND OPEN-MARKET ACCEPTANCE RATE

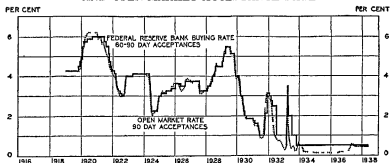


CHART X

The data on the buying rate for acceptances of the Federal Reserve Bank of New York and the data on open-market acceptance rates were obtained from the Annual Reports of the Federal Reserve Board, and from the Federal Reserve Bulletin, passim.

Reserve Bank's discount rate was maintained above the commercial paper rate during the latter half of 1932, there is only one outstanding occasion when its discount rate was clearly used as an instrument of direct control. This was the drastic increase from $4\frac{3}{4}$ per cent early in 1920 to 7 per cent by the middle of the same year—a point considerably higher than the customer-bank rate; although lower than the open-market rates on commercial paper prevailing at that time. Superficially viewed, the sharp rise in the discount rate in the fall of 1929 shown in the chart appears to indicate its use for control purposes; but as a matter of fact this increase, drastic as it was, merely brought the discount rate into accord with the prevailing market rate. It was thus a belated "following" of the market rate, rather than a positive measure for control of the market. On the rapid decline, however, from the autumn of 1929 to the summer of 1931, the Bank's rate slightly preceded the market rate.

It may be concluded that the discount rate policy of the Federal Reserve Bank of New York for most of this period was passive, with the exception of the year 1920. The explanation of this situation is given in the following discussion of open-market operations of the federal reserve banks.

Open-market Operations

The fluctuations in the buying rate of the Federal Reserve Bank of New York on 60-90 day acceptances, compared with those in the open-market rate on 90 day acceptances, are shown in Chart X. Inasmuch as the acceptance market has been dependent upon the reserve banks to purchase a large proportion of the total volume of bills created, market rates on acceptances have not varied greatly from the buying rates established by the federal reserve banks.¹ The supply of open-market funds available during this period for investment in bills at the low rates which prevailed was for the most part insufficient to absorb all the bills offered, and hence the federal reserve banks, through the Federal Reserve Bank of New York, provided at relatively low rates, the funds necessary to absorb these bills. Under such circumstances the open-market rate could not move far above or below the federal reserve bank rate. There is to be noted, nevertheless, at times a lag in the buying rate of the federal reserve banks behind the open-market rate. This seems to indicate a passive policy on the part of the federal reserve bank authorities—that is, the policy at these times appears to have been to let the federal reserve bank buying rate “follow the market.” The federal reserve banks

¹ A more complete explanation of this relationship is contained in Riefler, W W, *op. cit.*, pp 21-3

adjusted their participation in the acceptance market to the conditions of the market by lowering their buying rate whenever it seemed necessary to do so in order to support the acceptance market.¹ When the market was rising, the federal reserve bank buying rate lagged sufficiently to enable the surplus of bills in the market to be absorbed by the federal reserve banks. If the federal reserve bank buying rate on acceptances was being used as an instrument of control, it would have risen in advance of the open-market rate, and vice versa.

The fact that the federal reserve banks during this period stood ready to purchase all eligible acceptances at a given published rate was an important aspect of the open-market operations of the federal reserve banks. Another important aspect was the purchase and sale by the federal reserve banks of United States government securities.

Importance of Open-market Purchases and Sales of United States Government Securities

It should be noted that, in the case of rediscounting as well as in that of the buying of acceptances, the function of the federal reserve banks is essentially indirect and passive. In other words, they set a rate at which anyone (banks in the case

¹ But see Spahr, Walter E., *The Federal Reserve System and the Control of Credit*, pp. 34-59, for a somewhat different interpretation of the relationship between discount rates and open-market operations

of rediscounting and either banks or acceptance dealers in the case of acceptance purchases) may go to the federal reserve banks and rediscount or sell. The initiative in both cases lies outside the federal reserve bank. The amount of federal reserve credit in the money market is not increased if federal reserve banks lower their rediscount rate or the acceptance buying rate, unless that reduction in rate is followed by increases in rediscounting by member banks or increases in the amount of acceptances offered to the federal reserve banks.

On the other hand, in the case of federal reserve bank open-market purchases or sales of United States government securities, the action is initiated by the federal reserve banks themselves. The operations of the federal reserve banks in United States government securities are positive, therefore, as they actually buy or sell such securities in the market at current prices. The effect of federal reserve bank policy, as put into practice through purchases or sales of United States government securities, is immediate and positive, resulting in increases or decreases in federal reserve credit outstanding without any necessary initiative on the part of member banks or parties outside the federal reserve banks. For this reason, much reliance was placed upon the purchases and sales of United States government securities as a means of enforce-

ing federal reserve control over the money market during the years 1922 to 1933, inclusive

Another reason often advanced in favor of the use of purchases and sales of United States government securities by the federal reserve banks, rather than changes in the discount rates, as a means of controlling the money market, is that the use of the discount rate is more likely to result in sharp and often undesirable psychological reactions. Just as in taxation, indirect taxes produce revenues less painfully than do direct taxes, so in the control of the money market, purchases and sales of United States government securities by the federal reserve banks accomplish their purposes as effectively as would changes in the discount rate and usually more gradually and with less public irritation and criticism.

IV

Federal Reserve Policy and Business Activity

About 1922 there began to emerge something like a definite policy on the part of the federal reserve authorities, and, as may be seen from Charts XI and XII, there appears from that time a more or less consistent relationship between the various components of federal reserve credit and business activity as measured by the index of industrial production. While the interests of foreign countries have at times played an important part in deter-

mining federal reserve action, the policies of the federal reserve authorities have been dominated by domestic considerations. In Chart XI the index of industrial production is shown. In Chart XII are shown the principal items of federal reserve credit outstanding. These are (1) bills discounted, which includes the member bank collateral loans, (2) bills bought, which means essentially the federal reserve open-market purchases of bankers' acceptances,¹ and (3) United States government securities bought, which means the portfolio of open-market purchases of United States government securities held by federal reserve banks.²

From the beginning of 1922 through the year 1931, the money market was controlled mainly through the open-market operations of the federal reserve banks, and particularly through purchases and sales by them of government securities. The federal reserve discount rates were forced up or down by the open-market operations. With the exception of the autumns of 1924, 1928 and 1931 federal reserve bank policy was not reflected to any substantial extent in open-market purchases of

¹ See *supra*, pp. 56-7

² The only other form of federal reserve credit of consequence is the so-called industrial advances which may be made directly to industries requiring working capital. These advances made under authority of section 13b incorporated in the Federal Reserve Act, June 19, 1934, began in August 1934. To date the volume of such advances has been small, the month-end average amount outstanding during 1937 was only \$21.3 million, and for the first seven months of 1938, \$19.1 million.

INDEX OF INDUSTRIAL PRODUCTION

(1923-1925 average = 100)

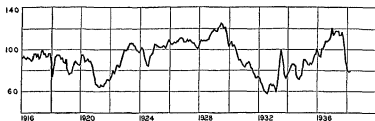


CHART XI

Federal Reserve Board, Index of Industrial Production, 1919-38, see Annual Report of the Board of Governors of the Federal Reserve System for 1936, pp 184-9 and Federal Reserve Bulletin, June 1938, p 526 The Index of Industrial Production 1916-19 is from Standard Statistics—Basic Statistics, April 29, 1938, p 67

PRINCIPAL ITEMS OF FEDERAL RESERVE CREDIT OUTSTANDING

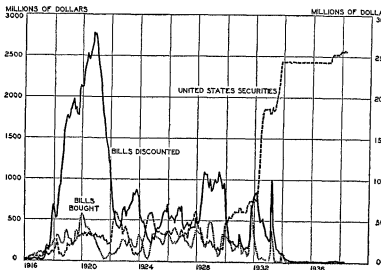


CHART XII

The data on the principal items of federal reserve credit were obtained from the Annals

acceptances. Such purchases were dictated rather by the exigencies of the acceptance market and the desire of the federal reserve authorities to develop this market. For this reason, a brief discussion of the relationship of the broken line on Chart XII, representing the portfolio of the United States government securities held in the federal reserve banks, and industrial production, will help to explain federal reserve policy during the period 1922 through 1931

*Relationship between Member Bank Borrowing and
Federal Reserve Bank Security Purchases*

At the beginning of 1922 much of the world, including England, Sweden, Netherlands, Japan, Italy, Austria, Canada, and Argentina, was in a state of business depression. The United States was emerging from depression; France, Belgium and one or two other countries were relatively prosperous. Easy credit conditions gave promise of bringing the world out of the depression and this was particularly true of the United States. An easy credit policy was, therefore, followed by the federal reserve authorities, through the increase of federal reserve bank holdings of United States government securities, as shown in Chart XII. This policy, along with the gold flowing in during the year, enabled member banks to pay off their

indebtedness at the federal reserve banks and, in addition, to increase their reserve balances with federal reserve banks. By the middle of 1922, however, the continued inflow of gold seemed to have been considered by the federal reserve authorities to have been a sufficient stimulus to member bank credit expansion. In fact, the extraordinarily rapid rise about that time in the index of industrial production seemed to presage a boom. The federal reserve easy credit policy was therefore reversed to a relatively firm credit policy and United States government securities were heavily sold by the federal reserve banks. As the securities were sold member bank balances were depleted by an equal amount and this forced the member banks to rediscount with the federal reserve banks, that is, to borrow from them (see in Chart XII the rise in bills discounted with the decline in United States government security holdings of the federal reserve banks). Industrial production reached its peak late in the spring of 1923, followed by the downward movement culminating in the "minor depression of 1924."

By 1924, all of the more important countries, with the exception of Japan, had emerged from the depression of 1921 and the world was in a relatively prosperous condition—a minor depression taking place in the United States. Even though much of the world was prosperous, it appeared to

the federal reserve authorities safe to follow an easy credit policy, in view of the minor depression in this country, and for the purpose of helping England to return to the gold standard. The federal reserve policy, therefore, was to purchase government securities at a fairly rapid rate throughout most of the year 1924.¹ This enabled member banks again to pay off much of their indebtedness to federal reserve banks and to expand credit on a cheaper credit base.

Somewhat alarmed by the spurt in business activity which followed and also by the large amount of speculation in stocks and bonds, the federal reserve authorities early in 1925 sold government securities rather heavily and thereby made credit conditions firmer. This, together with an outflow of gold in the spring of 1925, forced member banks once more to rediscount with their federal reserve banks. From the course of the index of industrial production, this tightening of the

¹ Following is the comment of the Federal Reserve Board concerning its policy during 1924: "At the time when the open-market purchases were made there was a recession in industrial activity, the attitude of the business community was hesitant, and there was no evidence of the growth of speculation. Open-market purchases during this period served to build up a portfolio of securities and to increase the proportion of outstanding reserve bank credit under the direct control of the federal reserve banks. By these purchases the reserve banks placed themselves in a position, through the subsequent sale of securities in case it should become desirable, to cause member banks to discount and to bring a larger part of the outstanding reserve bank credit under the influence of the discount rate." See *Annual Report of the Federal Reserve Board for 1924*, p. 12.

money market seemed to have the desired effect of levelling off the boom and, in fact, causing a slight recession. Conditions seemed to have been fairly well stabilized at a high level of prosperity during 1926 and the first part of 1927.¹ During the summer and fall of 1927, some recession appeared in the index of industrial production for the United States. However, many of the important countries of the world were riding on the crest of boom times, including Australia, England, Germany, and Poland. But Italy, Japan, and Norway were depressed.

*Federal Reserve Credit and Security
Speculation*

A striking characteristic of the year 1927 from the point of view of the United States was the flotation of foreign and domestic securities, which assumed record-breaking volume.² Still it did not seem that speculative activity was assuming dangerous proportions. Considering the slight business recession in this country in 1927, the federal reserve system eased credit conditions by the rapid purchase of government securities, beginning in the forepart of 1927. To some extent this policy was due to the desire to cooperate internationally to help the world maintain the gold standard and

¹ *Annual Report of the Federal Reserve Board for 1926*, pp. 1-3, and *ibid.*, 1927, pp. 1-3.

² *Annual Report of the Federal Reserve Board for 1927*, pp. 5-8, and *ibid.*, 1928, pp. 1-3.

particularly to help England reduce the amount of deflation necessary to enable her to clinch her recently re-established gold standard.¹ At any rate, this easy credit policy was continued by the federal reserve banks throughout the remainder of the year 1927. Instead of member banks using this credit, however, as they had on other similar occasions, to reduce their indebtedness to the federal reserve banks, they used it as a basis for the expansion of security loans.²

Inflation in the securities market, thus stimulated, was an object of great concern to federal reserve authorities and early in 1928 federal reserve policy was reversed and the federal reserve banks began to sell rapidly their holdings of United States government securities. This, accompanied by an outflow of gold (see Chart VI), had the effect of tightening the money market and forcing member banks to rediscount with their federal reserve banks. The boom seemed to have been levelled off by the late spring and early summer of 1928, as the index of industrial production shows. There also had been a significant pause in stock market speculation, in the rise of security prices and in loans on securities. In the late summer and fall of 1928, federal reserve policy changed. A halt was called in the sale of United States government securities,

¹ *ibid.*, 1927, p. 10

² *ibid.*, pp. 5-6 and 10-1

and not only that, but unusually large purchases of bank acceptances were made—more than enough to take care of the seasonal requirements—and this so eased the credit situation that member banks were able to reduce their indebtedness at federal reserve banks.¹ This was accompanied by the resumption of the stock market boom and of the business boom as indicated by the extraordinary rise in the index of industrial production

Experiment with "Moral Suasion"

About the beginning of 1929, the federal reserve authorities resumed their tight-money policy, but by this time the country was in the midst of a "runaway market." The boom collapsed of its own weight in the fall of 1929. This tight-money policy, from the end of 1928 to the late summer of 1929, was carried out by a much larger reduction in federal reserve bank holdings of acceptances than the normal seasonal reduction, and also by some sales of United States government securities.

In addition to the above-mentioned measures, some of the federal reserve banks wanted to raise their rediscount rates. For the reason that the system's portfolio of government securities was greatly depleted by the sales made in the first half of the year 1928, these federal reserve banks felt that "the

¹ cf. *Annual Report of the Federal Reserve Board for 1928*, pp. 6-7

main reliance in a further firming of money conditions must have been further marking up of federal reserve discount rates . . .”¹ However, the Federal Reserve Board was “not disposed to regard favorably further increases of the discount rate as the appropriate method of dealing with the situation . . .”; but preferred to exercise “direct pressure” or “moral suasion” upon the member banks to restrict the wild expansion of speculative credit. Accordingly, the Board addressed letters to the federal reserve banks, under date of February 2, 1929, calling attention to the fact that security speculation was assuming dangerous proportions, which made it “incumbent upon the federal reserve banks to give constant and close attention to the situation in order that no influence adverse to the trade and industry of the country shall be exercised by the trend of money conditions, beyond what may develop as inevitable.

“The extraordinary absorption of funds in speculative security loans which has characterized the credit movement during the past year or more, in the judgment of the Federal Reserve Board, deserves particular attention lest it become a decisive factor working toward a still further firming of money rates to the prejudice of the country’s commercial interests ”

¹ cf. *Annual Report of the Federal Reserve Board for 1929*, p. 2

“ . . . A member bank is not within its reasonable claims for rediscount facilities at its federal reserve bank when it borrows either for the purpose of making speculative loans or for the purpose of maintaining speculative loans.

“The Board has no disposition to assume authority to interfere with the loan practices of member banks so long as they do not involve the federal reserve banks. It has, however, a grave responsibility whenever there is evidence that member banks are maintaining speculative security loans with the aid of federal reserve credit. . . .”¹

Federal Reserve Credit and the Depression

After the collapse in the early fall of 1929, credit stringency and perhaps something worse was prevented by the federal reserve banks, through their rapid purchase of United States government securities, which enabled member banks to assume temporarily the heavy indebtedness in the brokers' loan market shifted to them, as interior banks, corporations, and individuals withdrew their funds from the market. Later in the year, the member banks were enabled to reduce their borrowings from the federal reserve banks. As liquidation progressed and the depression came to be of increasing severity, the easy credit policy was continued until by the end of 1930 federal reserve bank holdings

¹ *Annual Report of the Federal Reserve Board for 1929*, p. 3

of United States government securities were of record-breaking volume up to that time and member bank borrowings were at very low figures.

By the year 1930, practically every important country in the world was suffering from the depression, with the exception of France, and by 1931, France also was definitely among the sufferers. The world financial panic resulted in the huge withdrawals of gold from the United States in the fall of 1931 already noted, and it was the federal reserve policy to permit this gap to be filled, in part by member bank borrowing, in part by purchases of acceptances much greater than seasonal requirements, and in part by increasing federal reserve bank holdings of United States government securities. Meantime the federal reserve system made possible extremely easy credit conditions by holding its large portfolio of United States government securities and by maintaining low discount rates. Although money rates and rediscount rates advanced somewhat in the autumn of 1931, these higher rates did not assume the proportions of penalty rates such as would normally be associated with a heavy outward movement of gold. On December 1, 1931, the discount rates of the federal reserve banks were lower than central bank rates in all the important countries with the exception

of France, Belgium, Switzerland and the Netherlands.¹

In summary, it may be pointed out that, with the exception of the rapid easing of the money market in the fall of 1927 because of only a minor recession in business activity and in the face of security flotations of record volume; and, with the exception, also, of the wavering policy in the fall of the year 1928, the policy of the federal reserve banks during this period was fairly consistent with the generally accepted principles of central bank practice.

¹ *Federal Reserve Bulletin*, December 1931, p. 682

CHAPTER XI

THE REORGANIZATION OF THE FEDERAL RESERVE SYSTEM DURING THE EARLY YEARS OF THE WORLD ECONOMIC DEPRESSION

THROUGHOUT the financial world confidence received a rude shock when Great Britain departed from the gold standard on September 21, 1931. Almost at once the United States was subjected to an enormous loss of gold. Within the short space of six weeks, our gold exports totaled about \$725 million. Only the existence of the federal reserve system prevented this huge outward flow of gold from causing a panic and severe contraction of bank credit.

The extent to which federal reserve credit was substituted for the gold that left the country, compensating this force making for deflation, is indicated by the figures on the following page covering the amount of federal reserve credit outstanding on two dates six weeks apart.

That the increase in total federal reserve credit outstanding was somewhat greater than the decline in our monetary gold stock may be attributed to domestic banking difficulties, which were increased by the general uncertainty and distrust prevailing at this time.

	SEPT 16, 1931	OCT 28, 1931	CHANGE DURING PERIOD
	<i>(In millions of dollars)</i>		
Bills discounted	\$263	\$717	+\$454
Bills bought	218	725	+ 507
U. S. government securities owned	742	727	- 15
Other reserve bank credit	56	42	- 14
Total federal reserve credit outstanding	<hr/> \$1,279	<hr/> \$2,211	<hr/> +\$932

After the United States had successfully met the crisis, gold began to flow back into this country and during November and December 1931, about \$170 million was added to our total gold stock. As a result of these imports and others of considerable amount which had taken place early in 1931, the net decline in our gold holdings during the year was reduced to approximately \$135 million.

The Glass-Steagall Act

The unusually heavy gold exports in September and October 1931, and the increasing volume of federal reserve notes in circulation were among the principal reasons for the enactment of the Glass-Steagall Act of February 27, 1932, amending the federal reserve law.¹ This legislation consisted of

¹ For a detailed discussion of the provisions of this Act, see *supra*, pp. 70-2 and pp 79-81

two parts, the more important of which authorized the use of United States government obligations as collateral security for federal reserve notes. The enactment of this emergency provision allayed public fears that the country might be driven off the gold standard while still holding an almost unprecedented stock of monetary gold.

The other part of the Glass-Steagall Act added two new paragraphs to the Federal Reserve Act¹ It was the purpose of these additional sections to allow a federal reserve bank to extend credit to member banks, which did not possess eligible paper, when the circumstances were unusual and exigent, against the pledge of any other assets that should be satisfactory to the reserve bank. This type of loan, however, could not be used by a federal reserve bank as collateral for federal reserve notes

As soon as the Glass-Steagall Act was passed, the federal reserve banks were enabled to increase their purchases of government securities very substantially. The effect of such purchases was to put additional federal reserve notes and deposits at the disposal of the member banks.

Total holdings of government securities had been about \$800 million at the end of 1931 and were little changed until the passage of the Glass-Steagall Act. From that time on, they were increased at a

¹ Sections 10a and 10b.

rapid rate, sometimes to the extent of \$100 million in a week, until they totaled approximately \$1,800 million at the end of June 1932.¹ The effect of these purchases upon the volume of federal reserve credit outstanding was as follows:

	FEB 24, 1932	JUNE 29, 1932	CHANGE DURING PERIOD
	<i>(In millions of dollars)</i>		
Bills discounted	\$835	\$470	-\$365
Bills bought	133	64	- 69
U. S. government securities owned	741	1,801	+1,060
Other reserve bank credit	25	11	- 14
Total federal reserve credit outstanding	<u>\$1,734</u>	<u>\$2,346</u>	<u>+\$612</u>

These open-market operations represented an attempt to put an end to the deflation of bank credit that had been proceeding at a rapid rate since 1929. It was the belief of those charged with the determination of federal reserve policy that the large balances put into the hands of the member banks by such operations would be used by them as the basis for new loans to their customers or for purchases of bond investments. Either use, it was reasoned, would tend to end the spiral of deflation

¹ of Chart XII, p. 146.

that was carrying prices of commodities and securities continually downward

This experiment failed in its primary purpose. Its chief effects were to allow the member banks to reduce their indebtedness to the reserve banks and to cushion the credit structure when large exports of gold began again early in 1932. The monetary gold stock of the United States was approximately \$4,354 million on February 29, 1932 and fell to \$3,919 million by June 30, a decline of \$435 million within the relatively short period of four months. A large part of this loss of gold was probably due to the open-market operations already described and to agitation in Congress in favor of inflationary measures, including that for the immediate cash payment of the soldiers' bonus. Of course, once the gold movement had set in, it would have resulted in a contraction of member bank credit if it had not been offset by a policy of credit expansion on the part of the federal reserve banks

*Extension of the Circulation Privilege of
National Bank Notes*

As a temporary measure, the Federal Home Loan Bank Act of July 22, 1932 (section 29), granted the circulation privilege, for a period of three years, to all United States government bonds bearing an interest rate of not more than $3\frac{3}{8}$ per

cent¹ This meant that any national bank could deposit the specified bonds with the Treasurer of the United States, pay the necessary tax, and issue national bank notes against the deposited bonds to an amount that would bring its total issue up to the amount of its paid-up capital. It was thus made possible to expand the existing national bank note circulation (of about \$652 million) by about \$917 million.² For many years, the circulation privilege had been enjoyed by only limited pre-War issues of 2 per cent bonds. The importance of the extension of the privilege at this particular time was that it enabled national banks which held the securities affected by the legislation to issue additional national bank notes, instead of borrowing at the reserve banks to obtain federal reserve notes. In practice, however, very limited use was made of the additional circulation privilege, for the member banks had a substantial and increasing volume of idle funds in the form of excess reserve balances. Between June 30 and December 31, 1932, the circulation of national bank notes increased to the extent of only \$119 million. During the same period, total money in circulation declined by \$20 million, indicating that the increased volume

¹ For the provisions of this Act relating to the issue of national bank notes and a discussion thereof, see *Federal Reserve Bulletin*, August 1932, pp. 478-80 and 535-7

² *ibid.*, p. 479

of national bank notes was slightly more than offset by decreases in other kinds of money outstanding, notably federal reserve notes. To the extent that this tendency to expand national bank note circulation continued, it allowed member banks to reduce their indebtedness to the federal reserve system.¹

Loans to Individuals, Partnerships, and Corporations

From the beginning the federal reserve banks had been known as "bankers' banks." Excepting only their open-market operations, their dealings were almost exclusively with the member banks² and with the government, never with the general public. The first departure from this tradition came as a result of the demand for increased credit accommodation at the bottom of the depression. As part of the Emergency Relief and Construction Act of July 21, 1932, Congress passed an amendment to section 13 of the Federal Reserve Act permitting the reserve banks to make direct loans to individuals, partnerships, and corporations. The reserve banks were authorized, after obtaining the approval of not less than five members of the Federal Reserve Board, to discount short-term notes, drafts, and

¹ For details regarding the subsequent retirement of all national bank notes, see pp 225-7.

² Including, for clearing purposes, some so-called clearing member banks.

bills of exchange for any individual, partnership, or corporation unable to obtain the accommodation from other banking institutions. Although the first loan under this provision of the law was made on August 4, 1932, by the end of the year only 23 such advances had been made totaling less than a million dollars.

Additional legislation to give the public direct access to the reserve banks was included as part of the Emergency Banking Act of March 9, 1933. This Act, among its various provisions, further amended section 13 of the Federal Reserve Act to allow the reserve banks to make advances, for periods not exceeding 90 days, to individuals, partnerships, or corporations on their promissory notes when secured by the direct obligations of the United States government.

Although some criticism has developed with reference to these provisions for direct loans, particularly from member banks which are loath to be compelled to compete for customers' business with the central banking system, the reserve banks have made few such advances, and direct loans have been unimportant up to the present time. The highest total of such loans outstanding since the legislation authorizing them was first enacted in 1932 came to less than one and a half million dollars

*Capital Loans to Industries or Commercial
Businesses*

Since many small industrial and commercial enterprises had suffered severe shrinkages in their working capital during the depression, Congress passed an act on June 19, 1934, allowing such units to obtain capital loans directly from the federal reserve banks when other sources of credit are closed to them. This legislation added section 13b to the Federal Reserve Act. Under the authority here granted, the reserve banks may make loans to, or purchase the obligations of, established industrial or commercial enterprises which are unable to receive financial assistance through regular banking channels. Such loans or credits cannot have a maturity exceeding five years.

The federal reserve banks are also authorized by this legislation to participate with member banks or other financial institutions in making working capital loans to industry. Finally, it is provided that the federal reserve banks may obligate themselves to take over working capital loans made by member banks or non-member banks and to assume an agreed proportion of any resulting loss, but in no case more than 80 per cent of the amount of the original loans.

The legislation provided for the establishment in each federal reserve district of an industrial

committee to assist in making such advances and commitments. This committee must not have less than three or more than five members, all of whom are actively engaged in some industrial undertaking. All applications for industrial advances require the approval of the local committee before transmittal to the federal reserve bank for action. Notwithstanding the favorable terms upon which such credit accommodations can be obtained, relatively few enterprises have taken advantage of the opportunity. Up to the present time the maximum amount of industrial advances by the reserve banks outstanding at the end of any month has been \$33 million.

In order to enable the federal reserve banks to make such working capital loans to industrial and commercial enterprises, Congress authorized the Secretary of the Treasury to return to each reserve bank its pro rata share of the \$139,299,557 subscription to the stock of the Federal Deposit Insurance Corporation made by the federal reserve banks.¹ Such payments were to be added to the surplus account of the individual reserve banks, since funds for the stock subscription had originally been taken from surplus. The funds needed by the Treasury to fulfil the intent of this provision of the law were appropriated out of the gold increment or "profit" accruing to the government as a result of

¹ *Infra*, pp 229-30.

the legal devaluation of the dollar on January 31, 1934.

The Banking Panic of 1933

Even during the prosperous years of the 1920's large numbers of banks failed year after year. The total number of failures during the years 1921-29 inclusive came to 5,714 banks, which held deposits of \$1,626 million. In only two years of these nine were there less than 500 bank failures, and in no year were the deposits of banks that failed less than

RECORD OF BANK FAILURES BY CALENDAR YEARS, 1921 to 1932

NO OF FAILURES

DEPOSITS OF FAILING BANKS
(MILLIONS OF DOLLARS)

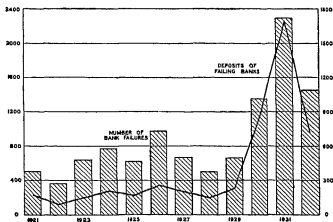


CHART XIII

\$93 million.¹ This disgraceful record was unequalled in any other country. The failures not only inflicted much hardship and undeserved loss on many thousands of innocent depositors, but also greatly impeded the orderly functioning of the nation's economic life. In this connection it should be borne in mind, as previously noted, that something like 90 per cent of the nation's business is transacted by means of bank checks.

The reasons for the bank failures were many and varied. Some of the most important were the unwise extension of mortgage credits on farm land during the War and post-War boom,² the unhealthy competition between the national and state banking systems leading to a levelling down of their respective banking standards, the small amount of capital required to start state banks in many sections of the country and the consequent growth of excessive banking facilities, the diversion of increasing proportions of bank assets away from cur-

¹ For detailed figures see *Annual Report of the Federal Reserve Board for 1934*, p. 167.

² During the period of the World War and for a short time immediately following, when prices of agricultural products reached spectacular heights under the pressure of European war demands and of inflation at home, the prices of agricultural lands in many parts of the United States were boosted to extravagant figures by large purchases of land on the part of farmers, who bought it largely on mortgage credit—in other words, "on a margin." Between 1910 and 1920 the farm mortgage debts of the United States increased from \$3,320,470,000 to \$7,857,700,000 an increase of 137 per cent, most of which took place in the latter years of the period. cf. Wickens, David L., "Farm Mortgage Credit," U.S. Department of Agriculture, *Technical Bulletin no. 288*, February 1932, p. 4.

rent business and into the securities market and finally the incompetence of large numbers of those in charge of our banking institutions.

With the onset of the depression, there was a marked fall in the prices of securities, agricultural products and real estate, which had come to serve as the basis for a large part of the outstanding bank credit. To a banking system already in a weakened condition this decline in prices proved disastrous. In 1930, 1,352 banks with deposits of \$853 million were unable to meet the demands upon them and were compelled to close their doors. In 1931, the number of failing banks rose to 2,294 and the deposits thereby immobilized—much of which were permanently lost—totaled \$1,691 million. The number of failures increased greatly in the fall of the year when confidence nearly everywhere throughout the world was shocked by England's departure from the gold standard.

The government attempted to alleviate the situation in October 1931, by the formation of the National Credit Corporation. This institution was financed by the banks themselves and was designed to extend credit on assets that were sound but which under existing law were not eligible for rediscount at the federal reserve banks. When the emergency became so acute that even this assistance proved inadequate, the Reconstruction Finance Corporation was created by act of Congress

and began to operate in February 1932. It was the primary function of this corporation to make sound loans to banks, insurance companies and railroads in order to bolster up some of the weakest places in the credit structure of the country. Within the single year 1932 the Reconstruction Finance Corporation extended loans of \$850 million to approximately 5,600 banks and trust companies. Of this total amount, \$600 million was outstanding at the end of the year. Largely because of the assistance of the Reconstruction Finance Corporation the number of bank failures was sharply reduced in 1932 as contrasted with the unprecedented total of the previous year.

Late in 1932, however, the number of bank failures began to increase again, and this trend continued through the first weeks of 1933. In certain places where banking difficulties were especially acute, moratoria on bank payments were introduced under the name of "bank holidays." The first of these was put into effect in Nevada in November 1932, but escaped general notice in the eastern section of the country. A few weeks later local moratoria were declared in various cities in Illinois and on January 20, 1933, the legislature of Iowa declared a virtual moratorium by authorizing the State Superintendent of Banking to operate any bank that could not meet its obligations in full, without forcing it to go into receivership. A tem-

porary banking holiday in Louisiana on February 4, added new fuel to the flames of public distrust and led to substantial withdrawals of currency from the banks in other sections of the country. The condition of many banks already seriously impaired was further weakened by the rapid shifting of funds for safety on the part of large business concerns from one part of the country to another in response to vague rumors and fears concerning banking conditions in various cities.

On February 14, 1933, the governor of Michigan declared a state-wide bank holiday because of the financial situation in Detroit. The effects of this moratorium in an important industrial state were national in scope, for funds were withdrawn from numerous banks elsewhere to be sent to Michigan or to be used in meeting payments that would normally have been made out of balances in the Michigan banks. A few days later a bank holiday was declared in Maryland because of financial difficulties in the city of Baltimore. Also, restrictions were placed on the withdrawal of bank deposits in Indiana, Arkansas, and Ohio. Several states passed laws to safeguard bank depositors or to readjust the liabilities of state banks without compelling them to go into receivership. These special powers given to the state banking authorities were frequently at variance with the powers

possessed by the Comptroller of the Currency in respect of national banks. Where state banks were authorized to close or operate on a restricted basis, unusual demands therefore were often made on the national banks remaining open. To meet this situation, Congress passed a joint resolution on February 25 authorizing the Comptroller to exercise the same powers in respect to national banks that state officials had with reference to state banks.¹

Such temporary expedients, naturally, did not greatly relieve the general distrust of the banking system on the part of the public. Altogether seventeen more states declared bank holidays between March 1 and 3, and the moratorium became practically complete when the governor of New York early in the morning of March 4, which was Saturday, proclaimed that day and the following Monday bank holidays. Similar action was taken at about the same time in Massachusetts, Illinois, New Jersey, Pennsylvania, and other important industrial and financial states. Thus, by March 4 practically every bank and trust company in the United States, and every federal reserve bank had been closed or severely restricted in its operation.

¹ *Annual Report of the Federal Reserve Board for 1933*, p. 10.

*Why the Federal Reserve System Could Not Prevent
the Panic*

Why was the federal reserve system unable to prevent such a general breakdown of our banking system?

As we have already seen,¹ one of the principal reasons for creating the federal reserve system was to mobilize the bank reserves of the country and make them available to the member banks at those times when unusual demands were made upon them. To obtain funds when needed, the member banks could rediscount their eligible paper with the reserve banks, sell their acceptances to them, or borrow from them on their 15-day notes secured by United States government obligations. As long as a member bank possessed an adequate supply of these kinds of paper, it had access to the reserve bank in its district and could obtain federal reserve notes to meet the demands of its depositors for money.

What the founders of the reserve system had not provided for, and what the reserve banks were powerless to remedy, was a general loss of confidence in the banks of the United States, and such a demand for repayment of deposits that many thousands of banks no longer possessed eligible assets adequate to obtain, through federal reserve loans,

¹ *Supra*, pp. 3-7, and pp. 41-51.

the required amount of federal reserve notes. When, in addition, the Reconstruction Finance Corporation had extended all the assistance it could to a bank, whether or not a member of the reserve system, on its "sound" but ineligible assets, there was no further source of help. In the event that the bank's creditors continued to demand the repayment of their deposits, the closing of the bank became inevitable. The continuation of this process during the three preceding years of depression took a toll of over 5,000 banks and then culminated in the "bank holiday" of March 1933.

Throughout the crisis the federal reserve system carried on with commendable courage and efficiency. The success of its efforts was reflected in the continued confidence in the nation's most important kind of currency—the federal reserve note—until the last weeks of the crisis, when there developed a substantial demand for gold. This demand was to be attributed not to any failure to maintain the value of the federal reserve notes, which were always redeemable in gold, but to fears that the incoming Administration intended to reduce the gold value of the dollar and resort to other inflationary measures.¹

The extent to which the reserve banks went to the aid of the member banks and the money market

¹ See Myers, William Starr and Newton, Walter H., *The Hoover Administration*, Chap. xviii.

during the weeks when the crisis was most acute is set forth in the following table showing changes in federal reserve credit outstanding between February 15 and March 8:

	FEB 15, 1933	MARCH 8, 1933	CHANGE DURING PERIOD
	<i>(In millions of dollars)</i>		
Bills discounted	\$ 286	\$1,414	+\$1,128
Bills bought	31	417	+ 386
U. S government securities owned	1,809	1,881	+ 72
Other reserve bank credit	10	- 68	- 78
Total federal reserve credit outstanding	\$2,136	\$3,644	+\$1,508

During the same period, money in circulation increased by \$1,684 million, of which \$1,324 million consisted of federal reserve notes and \$253 million of gold coin and gold certificates. Approximately two-thirds of these increases were concentrated in the week ending March 4.

Since this marked increase in the total of federal reserve notes in circulation coincided with the decline in the gold holdings of the system, the reserve ratio had fallen to 45.3 per cent on March 3. This was substantially above the legal minimum (of 35 per cent gold and lawful money against deposits and 40 per cent gold against notes), but the Federal

Reserve Board on that date, acting under the powers given it by section 11c of the Federal Reserve Act, suspended the reserve requirements for 30 days and provided for the imposition of the penalty tax on the amounts by which reserves should become deficient. This action was taken to make the position of the reserve banks impregnable and to give them freedom of action in meeting the crisis. The reserve banks, however, made little use of this suspension of reserve requirements. Following the bank holiday, federal reserve notes and gold were returned to the reserve banks in large volume and there was a substantial improvement in the general banking situation. The suspension of the reserve requirements was therefore not renewed at the expiration of the original 30-day period.

Emergency Banking Legislation

Early in the morning of March 6, the President, acting under the authority of one section of the almost forgotten "Trading with the Enemy Act" of October 6, 1917, as subsequently amended, issued a proclamation declaring a nationwide bank holiday from March 6 to 9 inclusive. The proclamation declared that there had been heavy and unwarranted withdrawals of gold and currency from the banks for hoarding and that foreign exchange speculation abroad had resulted in severe drains

on the nation's stocks of gold, with the result that a national emergency had been created. Therefore, in order to prevent the export, hoarding, or earmarking of gold or silver coin or bullion or currency, the President proclaimed that the bank holiday should be observed by all banking institutions in the United States, as well as in the territories and insular possessions thereof. During the holiday, except with the approval of the Secretary of the Treasury, no bank could engage in any of the customary banking operations. Subsequently, to prevent undue hardship, the banks were authorized to make limited payments that were necessary to provide their communities with food, medicine, and other necessities of life, to relieve distress, and to meet current payrolls. The purpose of this temporary suspension of almost all banking activity was to allow the public to regain its equilibrium and to give the authorities an opportunity to survey the situation and adopt comprehensive remedial measures.

On the same day that the proclamation calling for a national bank holiday was issued, the President summoned a special session of Congress to meet on March 9. To that session he sent a message asking for the immediate passage of legislation "giving to the executive branch of the Government control over banks for the protection of depositors; authority forthwith to open such banks

as have already been ascertained to be in sound condition and other such banks as rapidly as possible; and authority to reorganize and reopen such banks as may be found to require reorganization to put them on a sound basis."¹

Congress responded with alacrity and on the same day passed the Emergency Banking Act of March 9, 1933.² This legislation contained the following salient provisions:

1. Approval was given to the emergency measures adopted by the President and the Secretary of the Treasury between March 4 and March 9 in dealing with the banking crisis.

2. The President was empowered, during time of war or any other national emergency, to control foreign exchange transactions, gold and currency movements, and banking transactions

3. The Federal Reserve Act was amended by the addition of section 11n. This provided that whenever the Secretary of the Treasury deems it necessary to protect the currency, he may require all holders of gold coin and bullion and gold certificates to deposit their holdings with the Treasurer of the United States and receive in exchange therefor an equivalent amount of any other form of money issued under the laws of the United States.

¹ *Annual Report of the Federal Reserve Board for 1933*, pp. 12-13

² For the text of this Act, cf. *ibid.*, pp. 261-5

4. During the period of the emergency no federal reserve member bank was to engage in any kind of banking activity, except as permitted by the Secretary of the Treasury with the approval of the President.

5. The Comptroller of the Currency was authorized to appoint conservators for national banks in all cases where necessary to protect the bank's assets. The functions of the conservator were somewhat similar to those of a receiver, but he was not required to place the bank in liquidation. Where reorganization was necessary, the conservator was allowed to follow a simplified procedure which required the approval of a smaller proportion of the depositors and stockholders than older methods

6. National banks were given permission to issue preferred stock in order to obtain new capital, and the Reconstruction Finance Corporation was authorized to purchase such preferred shares, which were not to be subject to the double-liability provision

7. To meet the widespread demands for currency, the reserve banks were authorized to issue federal reserve bank notes of a character somewhat different from those previously issued and at this time constituting only a negligible part of our currency.¹ These notes were to be obtained by depositing with

¹ *Supra*, pp 62-3, cf Kemmerer, Edwin W, *Kemmerer on Money*, 2nd edition, pp 25-7.

the Treasurer of the United States the direct obligations of the government or any notes, drafts, bills of exchange, or bankers' acceptances acquired by the reserve banks in the course of their operations.¹ The federal reserve bank notes were thus a simple asset currency. A 5 per cent redemption fund in lawful money was held against them. The chief limitations on their issue were a tax of $\frac{1}{2}$ of one per cent per annum (corresponding to that required on the national bank notes secured by 2 per cent government bonds) and the provision that no more federal reserve bank notes could be issued, unless secured by deposits of government bonds bearing the circulation privilege, after the President proclaimed the termination of the emergency.

The circulation of federal reserve bank notes reached a peak of \$208 million at the end of December 1933. Since that time these notes have gradually been retired so that only about \$29 million were in circulation at the end of August 1938. In March 1935, the federal reserve banks deposited funds with the Treasurer of the United States for the retirement of all federal reserve bank notes then in circulation. They were thus enabled

¹ These federal reserve bank notes could be issued up to 100 per cent of the par value of the United States government obligations pledged as security, and up to 90 per cent of the estimated value of the notes, drafts, bills of exchange, and bankers' acceptances used as collateral.

to eliminate the liability for such notes from their balance sheets

8. Section 10b of the Federal Reserve Act, which was originally to remain in effect until March 3, 1934, and was subsequently extended for an additional year, was amended to allow the federal reserve banks permanently to extend loans at a penalty rate of interest on the time or demand notes of member banks, lacking eligible paper, without the advance approval of five members of the Federal Reserve Board. Also, the provision that such loans could be made only to banks with a capital of less than \$5 million was eliminated.

9. Finally, the reserve banks were authorized to make direct advances, for periods not exceeding 90 days, to individuals, partnerships, and corporations on their promissory notes, when secured by the direct obligations of the United States government ¹

An amendment to the Emergency Banking Act was enacted on March 24, 1933, to allow non-member state banks to borrow from the federal reserve banks during the period of the emergency. While thus indebted, the non-member banks were required to comply in all respects with the provisions of the Federal Reserve Act applicable to state member banks and the regulations of the

¹ This represented an amplification of the provisions for direct loans first contained in the Emergency Relief and Construction Act of July 21, 1932 *Supra*, pp 163-4

Federal Reserve Board issued thereunder. The most important of these provisions was that requiring maintenance of the legal reserve with the federal reserve banks. Non-member banks were not required, however, to purchase stock in the reserve banks.

The general purposes of this legislation are clear. First of all, it was designed to satisfy the panic demand for currency by making available a practically unlimited issue of federal reserve bank notes. Secondly, the President and the Secretary of the Treasury were given practically complete control over banking, foreign exchange transactions and gold movements, as well as the right to withdraw all gold from circulation. Thirdly, the lending powers of the federal reserve banks were increased so that they could render much greater assistance to member and non-member banks. And, finally, the way was cleared to reopen all sound banks, while conserving the assets of those banks that were not in a position to engage in unrestricted operation.

Reopening the Banks

Following the passage of the Emergency Banking Law on March 9, the President, acting under its authority, extended indefinitely the bank holiday. Then, on March 10, an executive order was issued authorizing the Secretary of the Trea-

sure to license federal reserve member banks that were sound to conduct their ordinary banking business, with the restrictions that gold payments were prohibited and that currency was not to be paid out for purposes of hoarding. State banking authorities were charged with the responsibility of examining and licensing non-member banks. In the work of receiving applications of member banks and issuing licenses to all that were found strong enough to reopen, the federal reserve banks were named to act as agents of the Secretary of the Treasury. Finally, gold exports were prohibited except under government license.

This program for reopening the banks was put into effect almost immediately. On Saturday, March 11, the Treasury authorized the reserve banks to reopen on the following Monday and to resume all normal banking operations, except that gold payments were prohibited. Also, a schedule was made public whereby sound banks in the twelve federal reserve bank cities were likewise to be reopened on Monday, March 13, banks in the 250 cities with established clearing houses were to be opened on March 14, and banks in all other places on March 15.

These measures proved notably successful in restoring confidence in the banks, which were opened according to schedule. Within three weeks about 12,800 of the 17,500 banks still in operation

before the bank holiday had been reopened on an unrestricted basis.¹ The public almost immediately stopped demanding repayment of their deposits and soon began to return large amounts of currency to the banks. From the end of the bank holiday to April 1, 1933, the total of money in circulation declined by approximately \$1,250 million after reaching a peak of \$7,538 million on March 8. An additional \$750 million was retired from circulation in the course of the ensuing five months. Reserves of the federal reserve banks increased from \$2,857 million on March 8 to \$3,598 million on April 5. This increase raised the reserve ratio from 43.5 on March 8 to 56.1 on April 5.

Abandonment of the Gold Standard

Strictly speaking the United States abandoned the gold standard on the morning of March 6 when the President issued his proclamation declaring the bank holiday,² although its formal legal abandon-

¹ The number of banks licensed to resume operations had increased to 15,370 by December 31, 1934. Deposits of licensed banks on that date totaled \$39,910 million. The number of banks that were licensed to reopen and then subsequently failed was surprisingly small. Only 179 licensed banks, with deposits of \$146 million, suspended payment in 1933. The number of such suspensions fell to 57, with deposits of \$37 million, in 1934. Between March 16, 1933, and December 31, 1936, 2,124 banks, with deposits of \$2,520 million, were liquidated or went into receivership. The number of banks operating in the United States on December 31, 1937—the latest date for which figures are available—was 15,393.

² The gold standard is a monetary system in which the unit of value, be it the dollar, the franc, the pound, or some other unit in which prices and

ment was not effected until April 20, 1933, when the President issued an executive order placing an almost complete embargo on the export of gold coin, gold bullion, and gold certificates, and on the earmarking of gold for foreign account. At the time this latter step was taken the monetary gold stock of the United States totaled about \$4,312 million. Of this amount the Treasury and the federal reserve banks had in their possession almost \$4,000 million or approximately one-third of the total gold holdings of all governments and central banks in the world.

The continuance of the abandonment of the old gold coin standard at this time, in the judgment of the writer, was not a matter of necessity, but an act of deliberate choice.

Between the end of February and the end of April there is no evidence either in foreign exchange rates or prices that there occurred any considerable depreciation in the dollar. In terms of

wages are customarily expressed and in which debts are usually contracted, consists of the value of a fixed quantity of gold in a free gold market.

In this definition several things that are popularly associated with the gold standard are conspicuous by their absence. There is no mention of gold coins, of legal tender, of free coinage, or even of redemption of paper money in gold. These things are all customary accompaniments of the gold standard. They are useful devices for maintaining it. The gold standard, however, could exist without any or all of them. Furthermore, a currency might have all these attributes and still not be a true gold standard.

For a more detailed discussion of this subject, see Kemmerer, Edwin W., *Kemmerer on Money*, 2nd edition, pp. 1-13, and *Money*, Chap. v.

cable-transfer rates on gold-standard France, the dollar depreciated 4.4 per cent, in terms of sterling it declined 4.4 per cent, wholesale prices rose 1 per cent and the cost of living declined 0.8 per cent, while common stocks showed an average rise of 6.7 per cent. Business was improving, the Federal Reserve Board's index of industrial production rose 4.8 per cent, the Cleveland Trust Company Index of industrial activity increased 4.9 per cent; department store sales rose 11.7 per cent.¹ The number of commercial failures declined 19.2 per cent and the liabilities 22.1 per cent.

In other words, confidence was returning and the emergency which justified temporary drastic measures during the bank holiday was passing. The situation was well in hand and the time had arrived for a turning back towards normal conditions as regards monetary and banking restrictions. In such a situation the wise course for the Administration to have followed was an early return to the gold standard with full convertibility of paper money into gold coin, at the old gold value and the removal of all restrictions on the exportation and holding of gold, accompanied by a bold assurance from the President that the government was willing if necessary to go to the limit of its resources for the maintenance of the gold standard.

¹ This was a period of increasing industrial activity not only in the United States, but in Canada, England and many other countries.

Of course, liberal emergency measures of the general types actually taken to help the debtor classes for a reasonable period should have been adopted

The proclamation of March 6, in effect, ended redemption of federal reserve notes in gold and reduced them to the status of an inconvertible currency. On April 5 the President issued an executive order forbidding the hoarding of gold and requiring all persons to deliver their holdings of gold, except for a personal exemption of \$100 and what was customarily needed in industry and the arts, to the federal reserve banks before May 1, 1933. Penalty for violation of the order was imprisonment for as much as ten years, or a fine running to a maximum of \$10,000. The executive order of April 20, 1933, placed an almost complete embargo on gold exports. Thereafter it was no longer possible to support the exchange value of the dollar against other currencies by gold shipments. Finally, on June 5, 1933, Congress passed a joint resolution abrogating the "gold clause" in all contracts, including government bonds, by declaring that every obligation requiring payment in gold dollars of a specified weight and fineness could be discharged by payment in any coin or currency that is legal tender for public and private debts,¹

¹ In this joint resolution Congress gave the legal tender quality to all coins and currencies of the United States, including federal reserve notes,

which meant in any kind of United States currency whatsoever. The legality of this action, about which there was considerable doubt, was upheld in a five to four decision by the United States Supreme Court in the "gold cases" on February 18, 1935.

The Thomas Inflation Amendment

Agitation for inflation had started soon after the beginning of the depression in 1929. As the debt burden became progressively greater with the sharp fall in prices, political pressure in favor of currency debasement increased at a rapid rate. By 1933 the theory that most of the economic troubles of the country could be remedied by a depreciation of the dollar was widely held. The aim of the Administration, expressly declared on numerous occasions, early came to be the restoration of the pre-depression commodity price level, which was generally assumed to be that prevailing in 1926.

Abandonment of the gold standard was one major step taken to achieve this purpose. Another was the passage of the so-called Thomas inflation amendment as Title III of the Agricultural Adjustment Act of May 12, 1933. This inflation measure gave extraordinary powers to the President to expand the currency and increase the total volume of bank deposits. The chief provisions of

circulating notes of federal reserve banks, and national bank notes, previously or subsequently coined or issued

this legislation, which had a direct connection with the federal reserve system, were the following:

1. The President was authorized, at his discretion, to instruct the Secretary of the Treasury to make agreements with the federal reserve banks to purchase, either in the open market or directly from the Treasury, United States obligations up to a total amount of \$3,000 million¹ in addition to those already held in their portfolios.²

2. If the Secretary of the Treasury was unable to obtain the assent of the federal reserve authorities to engage in these open-market operations, or if the purchases of government securities were inadequate to meet the purposes of the Act (i e., to bring about a sufficient rise in prices), the President was authorized to direct the Secretary of the Treasury to issue up to \$3,000 million in United States notes (greenbacks). The amount then in circulation was only \$261 million. These newly issued greenbacks were to be used to meet maturing federal obligations, to repay sums borrowed by the United States, and to purchase United States gov-

¹ Total holdings of United States government securities by the reserve banks on May 10, 1933, just prior to passage of this legislation, amounted to \$1,837 million

² If the conduct of these operations made it necessary to suspend the federal reserve bank reserve requirements, no graduated tax (under section 11c of the Federal Reserve Act) was to be paid on the amount by which the reserves were deficient. Similarly, the automatic increases in reserve bank interest and discount rates in effect (section 11c) whenever reserves become deficient in this connection were to be suspended

ernment interest-bearing obligations. Four per cent of this issue of greenbacks was to be retired from circulation annually.

3. The President was further authorized to fix the weight, in grains, of the gold dollar, and the weight of the silver dollar at a definite ratio to that of the gold dollar, at such an amount as he might determine to be necessary "to stabilize domestic prices or to protect the foreign commerce against the adverse effect of depreciated foreign currencies," and to provide for the unlimited coinage of gold and silver at the ratio fixed.¹ The only limitation on this sweeping grant of authority was the provision that the content of the gold dollar (23.22 grains of fine gold) could not be reduced by more than 50 per cent.

4. Finally, the Federal Reserve Board, upon affirmative vote of five of its members and with the approval of the President, was authorized to increase or decrease the reserve balances that member banks were required to maintain with their federal reserve banks, when it was declared that an emergency existed because of credit expansion or contraction. The Board was thus entrusted with an

¹ By this single section of an inflationary rider to a farm-aid bill, the President was given power to establish bimetallism in the United States, either national or international, at any ratio that he might decide upon. There was remarkably little public recognition of the fact, yet this was the same issue on which at least one Presidential campaign and numerous Congressional battles had been fought a generation previously. See Kemmerer, Edwin W., *Money*, Chap. xv.

exceedingly powerful instrument to effect changes in the total amount of bank credit in the country. With a single stroke of the pen it would be possible to accomplish, through alterations in reserve requirements, the same results that open-market operations were designed to achieve much more slowly.¹

If the President had used to any large extent the inflationary powers granted to him by these various provisions of the Thomas amendment, the result would have been a catastrophic rise in prices. Under the terms of this legislation, it was possible to double the country's monetary gold stock, raising it at a moment's notice from \$4,312 million to \$8,624 million, if the maximum devaluation of the dollar was effected, greenbacks up to an aggregate amount of \$3,000 million could be issued, the reserve balances of the nation's banks could be increased \$3,000 million by federal reserve purchases of government securities, which in turn might be used as the basis for an issue of \$3,000 million of federal reserve bank notes; and then these effects might be multiplied through administrative reductions by the Federal Reserve Board in the legal reserve requirements of member banks. Finally, the country's money could be placed on a bimetallic basis by providing for the

¹ *cf. supra*, pp. 51-4 and *infra*, pp. 249-51

free coinage of silver at some ratio substantially below the current market ratio, which averaged 73 to 1 for 1932 and 59 to 1 for 1933. To these far-reaching powers should also be added the authorization contained in the Emergency Banking Act of March 9 allowing member banks to borrow from the federal reserve system on paper that was ordinarily ineligible for such purposes and the fact that federal reserve credit was made available for a temporary period to non-member banks and trust companies.

Fortunately, those charged with responsibility were disposed to use the powers given them by the Thomas amendment with caution. One direct result of the legislation was an increase of \$583 million in federal reserve holdings of United States government securities between the middle of May 1933, and November 1. Aside from the subsequent devaluation of the dollar, most of the other inflationary powers have never been utilized. The possibility, however, that they might be used arbitrarily at any time has been up to the present a continual threat to public confidence in our currency both in the United States and abroad.

CHAPTER XII

FURTHER DRASTIC BANKING AND CURRENCY LEGISLATION

The Banking Act of 1933

ON June 16, 1933, twenty years after the passage of the original Federal Reserve Act, Congress enacted new banking legislation that represented the most important changes in the organic law up to that time. This new legislation, officially called the "Banking Act of 1933," was popularly known as the "Glass-Steagall Act."¹ Its declared objects were "to provide for the safer and more effective use of the assets of banks, to regulate interbank control, to prevent the undue diversion of funds into speculative operations, and for other purposes."

The impelling force behind its enactment at this particular time was the great popular demand for a reformation of the banking system of a character that would prevent a repetition of the speculative excesses in securities, real estate, and commodities that characterized the boom of 1927-29. The Glass banking bill, which was the original measure looking to banking reform, had been introduced in the Senate on January 21, 1932. It represented the re-

¹ For the text of the Act, see the *Annual Report of the Federal Reserve Board for 1933*, pp. 272-95.

sult of an intensive study carried on for more than a year by a subcommittee of the Senate Committee on Banking and Currency under the chairmanship of Senator Carter Glass. The first Glass bill was subsequently withdrawn and introduced again in a revised form on April 18, 1932. It received the approval of the Senate on January 25, 1933, but did not come to a vote in the House. In early March the 72nd Congress adjourned and the country found itself face to face with a major banking panic.

The new President called a special session of the new Congress for March 9 to deal with the emergency, and the Glass bill was introduced once more on March 11. It was immediately sidetracked, however, for emergency legislation to meet the nationwide bank crisis. Not to be deterred, Senator Glass introduced another revised draft of the bill on May 10, in which provision was made for the establishment of a Federal Deposit Insurance Corporation. All proposals for the guaranty of bank deposits had previously been opposed as unsound by Senator Glass, and his acceptance of the scheme at this juncture undoubtedly represented a compromise with political necessity. The Act was approved by the President on June 16.¹ Since the

¹ The Senate passed the Glass bill on May 25. The House had meanwhile enacted a banking bill proposed by Representative Steagall in which the guaranty of bank deposits was a prominent feature. Differences between the two bills were in time ironed out in conference and the final draft of the legislation was passed by Congress on June 13.

Banking Act of 1933 effected a number of major changes in the federal reserve system, it will be desirable to review briefly its chief provisions. These include the following:

1. *Restrictions upon the use of federal reserve credit for speculative purposes* The Federal Reserve Board and the reserve banks were given definite control over the purposes to which federal reserve credit is devoted in an effort to prevent its excessive use in security, commodity, and real estate speculation. This meant that the reserve system was to attempt to control the *quality* of credit outstanding as well as the *quantity*. Previously, any member bank presenting eligible paper was always permitted to have it rediscounted by the reserve bank in its district, regardless of the borrower's general credit policy or the use that was to be made of the proceeds of the specific loan. Hereafter, the rediscounting of eligible paper was made a privilege that could be readily withdrawn from a member bank. Each federal reserve bank was instructed to keep itself informed concerning the loans and investments of the member banks in its district—

“with a view to ascertaining whether undue use is being made of bank credit for the speculative carrying of or trading in securities, real estate, or commodities, or for any other purpose inconsistent with the maintenance of sound credit conditions . . .”

The Federal Reserve Board is to be informed whenever a member bank is devoting an "undue" amount of credit to such speculative uses and the Board may, in its discretion, deny the offending member bank access to the credit facilities of the federal reserve system. While giving the reserve authorities far greater powers of credit control than those previously held, these provisions are likely to have the effect of placing responsibility for any future speculative booms and collapses that may occur directly upon the federal reserve system.

2. *The separation of investment and commercial banking.* The law required the complete separation of the distinctive functions of investment and commercial banking by June 16, 1934, one year after the date of its enactment. Member banks were compelled to sever connection with their security affiliates. No member bank was allowed to underwrite or sell investment securities. No bank engaged in the issue, underwriting, or sale of securities was allowed to receive deposits subject to check or to repayment upon presentation of a passbook or certificate. Beginning January 1, 1934, interlocking directorates between member banks and securities organizations were unlawful, except where special permission was obtained from the Federal Reserve Board. Through these measures it was hoped to correct many of the abuses that had developed in the commercial banking system,

notably the betrayal by some banks of their fiduciary obligations to their depositors and the immobilization of demand deposits in long-term capital loans which often proved unsound.

3. *The insurance of bank deposits.* The unprecedented number of bank failures between 1921 and 1933, culminating in the bank holiday of early March, led to a strong popular demand for some kind of insurance of bank deposits. This was reflected in the Banking Act of 1933, which provided for both a temporary and a permanent insurance plan. The temporary plan was to cover individual deposits up to \$2,500 in amount and was to remain in effect from January 1, 1934 to July 1, 1934, when it was to be supplanted by the permanent plan.¹

4 *Payment of interest on deposits.* Member banks were prohibited from paying interest on demand deposits and the Federal Reserve Board was empowered to regulate the interest that might be paid by member banks on time deposits. The object of these provisions was to prevent a recurrence of the destructive competition in interest payments that had existed among many banks seeking to attract deposits. High rates of interest allowed to their customers had all too frequently led banks into dangerous ventures in the hope of large returns.

¹ For a more detailed discussion of this and subsequent plans of deposit insurance, cf *infra* pp 228-35

The savings accruing to the banks from this discontinuance of interest payments on demand deposits were expected to be applied to the writing off of doubtful assets and the restoration of impaired capital. It was also a consideration that funds would become available in this way to meet the assessments levied by the Federal Deposit Insurance Corporation. Figures prepared by the Comptroller of the Currency indicated that interest paid on demand deposits from 1928 to 1933 by member banks averaged \$165 million per annum. This, however, should not be accepted as an accurate estimate of the savings accruing to the banks as the result of the prohibition of such payments in the future, for interest rates had been falling during the period and have descended even further since that time. Moreover, the discontinuance of interest payments on demand deposits would doubtless lead to the transfer of substantial sums from demand to interest-paying time deposit accounts.

5. *Provisions for branch banking and changed capital requirements* To reduce the high rate of mortality that prevailed among small unit banks during the preceding years, national banks were authorized, with the approval of the Comptroller of the Currency, and under certain capital requirements, to engage in branch banking in the various

states on the same terms enjoyed by local state banks

The capital requirements for newly-established national banks, regardless of whether or not they were to engage in branch banking, were increased ¹

6 *Admission of mutual savings banks and Morris Plan banks to the federal reserve system* Mutual savings banks were granted the privilege of joining the federal reserve system on the same terms as those enjoyed by state banks and trust companies, except that they were to subscribe to the capital stock of the reserve bank in their district in an amount equal to six-tenths of 1 per cent of their total deposit liabilities.² The reserve required of mutual savings banks is 5 per cent of deposits.

Morris Plan banks and "other incorporated banking institutions engaged in similar business" were also allowed to become members of the federal reserve system

¹ In towns of less than 6,000 population, the new minimum capital requirement is \$50,000, whereas it was formerly possible for a national bank to be organized, with the approval of the Secretary of the Treasury, with a capital of \$25,000 in towns having a population of not more than 3,000. In cities with a population between 6,000 and 50,000 the minimum is now \$100,000, and in all cities with population in excess of 50,000, the minimum capital required is \$200,000.

² If prohibited by law from purchasing such stock, a savings bank was permitted for a limited period to deposit with the federal reserve bank an amount equal to the sum it would otherwise be required to pay in on account of subscription to capital stock.

Under this authority up to the present time only one savings bank and one Morris Plan bank have been admitted to membership ¹

7. *Discontinuance of franchise tax payments.* Net earnings of the federal reserve banks, after payment of dividends, are no longer to accrue to the government as a franchise tax, but are to be added to surplus. This is to compensate the reserve banks for the contribution of one-half of their surplus as of January 1, 1933, that they were required to subscribe to the Federal Deposit Insurance Corporation ² The reserve system began to pay the franchise tax in 1917 From that time until 1933 the total paid to the government was \$149,138,300. The bulk of this amount, or about \$120 million, accrued in 1920 and 1921, when the volume of federal reserve earning assets was at a high level and high interest and discount rates prevailed. After that time the amount of annual franchise tax payments was not large.

8. *Open-market operations and the Federal Open Market Committee* The federal reserve banks were prohibited from engaging in open-market operations except in accordance with regulations adopted by the Federal Reserve Board To coordinate such

¹ The two institutions are Personal Loan and Savings Bank, Chicago, Illinois, admitted in 1933 and The Morris Plan Bank of Toledo, Ohio, admitted in 1937

² To date only one-half of this subscription has been called by the Corporation

operations for the system as a whole, a Federal Open Market Committee was established, which was to be composed of one representative from each of the twelve federal reserve banks. Meetings of the Committee might be attended by members of the Federal Reserve Board. Legal standing was thus given to one of the most important policy-determining groups in the federal reserve system.

The evolution of the Federal Open Market Committee is an interesting example of the development of the system itself within recent years, as well as of the increasing importance of open-market operations as an instrument of credit policy. Prior to 1922 each federal reserve bank bought and sold government securities and bankers' acceptances as its own position and purposes dictated. There was no semblance of a coordinated open-market policy for all twelve banks. The result was that the reserve banks often found themselves bidding against each other.

In 1922, therefore, the governors of the federal reserve banks appointed a special committee consisting of the governors of the Boston, New York, Philadelphia, and Chicago banks to execute purchases and sales of securities at the request of the various reserve banks.¹ The purpose of this committee was not to decide upon an open-market

¹ The governor of the Federal Reserve Bank of Cleveland was subsequently made a member of this committee.

policy for the system as a whole, but only to coordinate the execution of orders in the open market.

The first venture into the field of open-market policy was taken in October 1922, when this same committee, by agreement among the governors of the reserve banks, was requested to make recommendations from time to time to the individual reserve banks with reference to their purchases and sales of government securities. Some months later, in the spring of 1923, the Federal Reserve Board took official cognizance of the growing importance of open-market operations by appointing an open-market investment committee consisting of the same members who had been appointed originally by the reserve bank governors themselves.

The following considerations were advanced by the Board as of primary importance in the formulation of open-market policy

“That the time, manner, character, and volume of open-market investments purchased by federal reserve banks be governed with primary regard to the accommodation of commerce and business, and to the effect of such purchases or sales on the general credit situation.

“That in making the selection of open-market purchases, careful regard be always given to the bearing of purchases of United States gov-

ernment securities, especially the short-dated issues, upon the market for such securities, and that open-market purchases be primarily commercial investments, except that Treasury certificates be dealt in, as at present, under so-called 'repurchase' agreement."¹

In the autumn of 1923, an open-market investment account was established for the system at large, with the approval of the Federal Reserve Board and the boards of directors of the twelve reserve banks. This step was taken to coordinate the open-market operations of the reserve banks and to give continuity to their policy. Thereafter, government securities were bought or sold by the open-market investment committee for this account and not for individual reserve banks. The securities held in the account were pro-rated among the twelve federal reserve banks on the basis of their size and general portfolio position.

After it had been in operation for several years, this general method of handling open-market operations came to be the subject of severe criticism in 1929 and 1930. It was charged that an extra-legal body not provided for by the Federal Reserve Act had usurped the most important powers of credit control possessed by the system. The criticism was

¹ Stabilization Hearings before the Committee on Banking and Currency, House of Representatives, 69th Congress, 1st Session, p. 311.

also advanced that the open-market investment committee, composed as it was of the governors of the eastern and mid-western reserve banks, was not truly representative. These charges reflected general dissatisfaction with the credit policy of the federal reserve system and its failure to put an end to the speculative boom before it got out of hand in 1928

In 1930, therefore, the open-market investment committee was succeeded by the open-market policy conference composed of all twelve governors of the reserve banks. This conference was given legal standing by the Banking Act of 1933. The name was changed to the Federal Open Market Committee, and the law provided that the board of directors of each federal reserve bank should annually select one representative to serve on the Committee. In practice, this representative was almost invariably the governor of the reserve bank. The Banking Act of 1933 also amended the Federal Reserve Act by incorporating the provision that all open-market operations were to be carried on "with a view to accommodating commerce and business and with regard to their bearing upon the general credit situation of the country." Thus, legal authority was given to the general policy in respect of open-market operations first set forth by the Federal Reserve Board in 1923

*The Gold Purchase Plan*¹

When the first efforts to raise prices through the threats of inflation contained in the Thomas amendment proved only partially successful, it was determined to embark on a gold-buying program expected to depreciate the exchange value of the dollar and stimulate a domestic price increase. The first step in this direction was taken with the issuance of an executive order on August 29, 1933, authorizing the Secretary of the Treasury to receive domestically-mined gold on consignment for sale abroad at the best price available in the world market. The result of this order was to give domestic gold producers the benefit of the depreciated exchange value of the dollar that developed after our departure from the gold standard. Domestic commodity prices in the United States were affected hardly at all.

The second step in the pursuance of the gold-buying policy was explained by the President in the course of a radio address on October 22. On this occasion he said:

"Our dollar is now altogether too greatly influenced by the accidents of international trade, by the internal policies of other nations,

¹ The author's judgment concerning this plan is given in some detail in *Kemmerer on Money*, 2nd edition, Chap. III.

and by political disturbances in other continents. Therefore the United States must take firmly in its own hands the control of the gold value of our dollar. This is necessary in order to prevent dollar disturbances from swinging us away from our ultimate goal, namely, the continued recovery of our commodity prices.

"As a further effective means to this end, I am going to establish a government market for gold in the United States. Therefore, under the clearly defined authority of existing law, I am authorizing the Reconstruction Finance Corporation to buy gold newly mined in the United States at prices to be determined from time to time after consultation with the Secretary of the Treasury and the President. Whenever necessary to the end in view, we shall also buy or sell gold in the world market."¹

This program was put into effect almost immediately, for the Reconstruction Finance Corporation on October 25 began to purchase domestic gold at the rate of \$31.36 a fine ounce, as compared with the former mint price of \$20 67. The gold purchases were not to be confined to the United States, however, and on November 1 the Federal Reserve

¹ *New York Times*, October 23, 1933

Bank of New York was named to act as the agent of the Reconstruction Finance Corporation in buying gold in foreign markets. Beginning January 16, 1934, the Federal Reserve Bank of New York superseded the Reconstruction Finance Corporation as the agent of the government in the purchase of gold. These arrangements continued in force until January 31, 1934, when the new regulations provided for in the Gold Reserve Act of 1934, approved on the preceding day, were issued.

During the first fifteen days of gold purchases here and abroad, the price offered for gold was raised almost daily by the Reconstruction Finance Corporation. Thereafter, price increases became less frequent. By January 16, 1934, the price per ounce had reached \$34.45, where it remained until the President's proclamation of January 31 fixing the fine gold content of the dollar for the time being at 13.714 grains of gold, which was the equivalent of a price of \$35 per ounce.¹

While the gold purchase plan was in operation the level of wholesale commodity prices showed very little change. The index numbers of the Bureau of Labor Statistics for the four months

¹ An ounce is 480 grains and $\frac{480}{13.714} = 35$

ending January 1934, were: October 71.2, November 71.1, December 70.8 and January 72.2.

It would take us too far afield to consider in detail why the government adopted the gold-purchase program and the reasons for its failure. Let it suffice to say that the Administration appears to have believed that a direct and proximate relationship existed between the price of gold and the wholesale price level. It therefore apparently expected that by raising the price of an ounce of gold, it would be able to bring about *promptly* a substantial rise in the level of wholesale commodity prices. What those advocating this policy did not explain was just how the higher price of gold would quickly and substantially increase the country's supply of money and bank deposits and thereby result in the desired prompt rise in commodity prices.

Rising Dollar Exchange Rates

While the gold-purchase program had little or no effect, at least for some time, in raising the domestic price level, the gold embargo of April 20 and the Administration's other monetary measures of this twelve-months period did bring about a substantial rise in the exchange rate of the dollar against gold-standard currencies such as the French franc and the Netherlands florin. The extent of this rise is indicated in the following table:

*Cost of One Gold Franc and One Gold Florin in
U.S. Currency¹*

<i>1933</i>	<i>Franc</i>	<i>Florin</i>
February	3 92¢	40.27¢
March	3.94	40.36
April	4 10	41.95
May	4.59	46 95
June	4.80	49 01
July	5 46	56.18
August	5 37	55.38
September	5.77	59.88
October	5.82	59.96
November	6 27	64.56
December	6.12	62 85
<i>1934</i>		
January	6.21	63.62
February	6.46	66 04

In so far as this movement in exchange rates was not compensated for by a rise in the domestic price level in the United States (assuming a situation of equilibrium when the movement began), it meant that the dollar was undervalued in terms of foreign currencies. There was obviously a substantial undervaluation, which became even more marked after quasi-stabilization was effected under the

¹ Data are from the *Federal Reserve Bulletin*, March 1934, p. 177, and represent the monthly averages of the daily quotations based on the noon buying rates for cable transfers in New York.

terms of the Gold Reserve Act of 1934. This was one of the most unsettling factors in international finance during the next few years. In large measure, it was responsible for the huge inflow of gold, which was an important factor in the increase of reserve balances and in turn augmented the difficulties of credit control by the federal reserve system.¹

The Gold Reserve Act of 1934

In order to put an end to the general uncertainty surrounding the government's monetary policy as well as to meet a widespread demand for stabilization of the dollar, the Gold Reserve Act of 1934 was hurriedly passed by Congress and was approved by the President on January 30, 1934. The importance of this Act, which ranks with the Resumption Act of 1875 and the Gold Standard Act of 1900, gives it a primary place in the monetary history of the country. Its principal provisions include the following:

1. Legal title to all gold held by the federal reserve system was transferred to the United States government and, in payment for the gold, the reserve system was to receive dollar credits in the Treasury. The credits were payable in a new kind of gold certificates issued in such form and such denominations as the Secretary of the Treasury

¹ For a more detailed discussion of gold imports, excess reserve balances, and problems of credit control, cf. *infra* pp. 249-61.

might determine ¹ They do not circulate as money and are redeemable in gold only at the option of the government, at rates determined by the government within specified limits, and to the extent considered necessary by the Secretary of the Treasury for maintaining the "equal purchasing power of every kind of currency of the United States "

2. Federal reserve notes, which had formerly been redeemable in gold on demand, were made redeemable only in lawful money. Furthermore, no currency of the United States was to be redeemed in gold, except to the extent permitted in regulations issued by the Secretary of the Treasury with the approval of the President

3. No gold was thereafter to be coined, and no gold already coined was to be paid out or delivered by the United States government. All United States gold coin was to be withdrawn from circulation and converted into bars.

4 Since gold was no longer to be available for domestic payments, and the old gold certificates were withdrawn from circulation, the legal reserve requirements imposed by law on the federal reserve banks were accordingly altered. The 35 per cent re-

¹ The "gold certificates" with which the government was to pay the federal reserve banks for their gold, although carrying the same name as the old "yellowbacks," were of a very different character, and to call them "gold certificates" was misleading. Since 1863 the original gold certificates had been virtual warehouse receipts for gold and until March 1933, were payable in gold on demand.

serve in gold or lawful money formerly required to be held against deposits of the reserve banks was changed to a reserve of corresponding amount in the new gold certificates or lawful money. Also, the 40 per cent reserve against outstanding federal reserve notes, which formerly was maintained in gold, was hereafter to be held in the form of the new gold certificates.¹

The reserve for United States notes and for Treasury notes of 1890 and the security for the new gold certificates were to be maintained by the Treasury in gold bullion equal to the dollar amounts required by law.

5. The Secretary of the Treasury, with the approval of the President, was required to prescribe conditions under which gold might be acquired, held, and transported (a) for industrial, professional, and artistic use; (b) by the federal reserve banks for the purpose of settling international balances; and (c) for such other purposes as in the Secretary's judgment are not inconsistent with the purposes of the Act.

6. The power given to the President by the Act of May 12, 1933, to reduce the gold content of the dollar by as much as 50 per cent was limited by the

¹ The gold redemption fund of 5 per cent maintained in the United States Treasury against federal reserve notes was also changed to a new gold-certificate redemption fund. As formerly, the balances in the fund could be counted as part of the 40 per cent gold-certificate reserve against federal reserve notes.

provision that in no event should the gold content of the dollar be more than 60 per cent of its previous statutory weight. This meant that the President could fix the weight of the dollar at a point anywhere between 50 and 60 per cent of its former weight, which was 23.22 grains of fine gold. He also was given authority to alter the gold content of the dollar within these limits, even after provisional stabilization had been effected. The period during which the President might devalue the gold dollar and fix the weight of the silver dollar at some definite ratio to the new gold dollar was to end January 30, 1936. It has since been extended to June 30, 1939.

7. The increase in the dollar value of all gold held by the United States that would result from a reduction in the weight of the gold dollar was to be covered into the Treasury as a miscellaneous receipt. If the dollar should be subsequently increased in weight, there would be a corresponding loss in terms of dollars on all gold holdings of the government and an appropriation was accordingly made out of the general fund of the Treasury to cover such loss, if it should occur.

8. Out of the gold increment or "profit" resulting from the devaluation of the dollar, a stabilization fund of \$2,000 million—subsequently reduced to \$1,800 million—was created to be administered under the exclusive control of the Secretary of the

Treasury, with the approval of the President.¹ This fund was to be used to stabilize the exchange value of the dollar, and in administering the fund the Secretary of the Treasury was authorized to deal in gold and foreign exchange, as well as in such other credit instruments as he might deem necessary to the purpose in view. Such parts of the fund as were not needed to stabilize the exchange value of the dollar could be invested in the direct obligations of the United States government. The stabilization fund was to remain in operation for two years after enactment of the legislation, i e., until January 30, 1936. The life of the fund has since been extended to June 30, 1939, unless the President shall sooner declare the existing emergency ended and the operation of the fund terminated.

9. The Secretary of the Treasury, with the approval of the President, was authorized to purchase gold in any amounts, at home or abroad, at such rates and upon such terms as he might deem most advantageous to the public interest. He was similarly authorized to sell gold, with the single restriction that gold maintained as a reserve or as security for currency issued by the United States could be sold only to the extent necessary to maintain such currency at a parity with the gold dollar.

The President was given authority to reduce the silver content of the standard silver dollar by the

¹ *Supra*, p. 110

same percentage that he should reduce the weight of the gold dollar. This provision of law would permit a reduction in the fine silver content of the standard silver dollar from 371.25 to a minimum of 185.62 grains. The President was further empowered to issue silver certificates against any silver bullion or standard silver dollars in the Treasury not then held for redemption of outstanding silver certificates, and also to coin silver dollars or subsidiary currency for the redemption of such new issues of silver certificates.¹

Acting under the powers given him in the Gold Reserve Act and in the Thomas amendment, the President issued a proclamation on January 31, 1934, devaluating the dollar by 40.94 per cent and fixing its gold content at 15.24 grains, nine-tenths fine, which is the equivalent of 13.71 grains of pure gold. Notice was also given that the President reserved the right to alter or modify the amount of the devaluation "as the interest of the United States may seem to require." The Treasury issued regulations to carry into effect the purposes of the Gold Reserve Act, providing among other things that the government would buy all gold offered to it, except that held in violation of law, at \$35 per ounce, less certain minor mint and handling

¹ For a discussion of the Silver Purchase Act of June 19, 1934, see *infra*, pp. 218-23. On the subject of recent American silver legislation and policies, see Kemmerer, Edwin W., *Kemmerer on Money*, 2nd edition, Chaps. VII and VIII, and Westerfield, Ray B., *Our Silver Debauch*.

charges. Similarly, gold was to be sold for use in industry, the professions, or the arts at \$35 per ounce plus one-quarter of one per cent

Under these regulations, the gold certificates that would be held by the federal reserve banks were to be redeemable in gold bullion to such an extent as the Secretary of the Treasury should consider necessary "to settle international balances or to maintain the equal purchasing power of every kind of currency of the United States." Such gold bullion could be held, earmarked for foreign account, or exported.

De Facto Gold Standard With Some Qualifications

What is our present monetary standard? The standard created by this new legislation is difficult to define. Legally, it is probably best classed as a restricted commodity standard, for the monetary unit fixed by law may have a range in gold value anywhere from 50 to 60 per cent of the value of our former gold dollar; and the law apparently contemplates the possibility of administratively varying the gold value of the dollar within this range according to the ups and downs of the commodity price level. Since the law was enacted, however, there has been no change in the gold content of the dollar and the law has been administered in such a way as to create what is close to being a *de facto* gold standard. So long as the government or its agencies

buy and sell gold on demand at approximately a fixed gold price—now \$35 an ounce—and permit gold to be freely exported and imported in unlimited quantities at practically this price, and permit the supply of the currency to respond to these gold movements, the gold value of the paper dollar will be maintained very close to the value of a fixed quantity of gold in a free market and this is the “constituting quality” of the gold standard.

To the extent, however, that the government interferes with the free exportation and importation of gold or prevents the gold coming in from increasing the country's monetary supply by the amount of gold imported or the gold going out from decreasing the monetary supply by the amount of gold exported, or to the extent that the government exercises its legal authority to vary the gold content of the dollar, the gold value of the dollar will tend to depart from the value of a fixed quantity of gold in a free market and to that extent we will depart from the gold standard.

Since the enactment of the stabilization law, our principal departure from the fundamentals of the gold standard consists of the United States Treasury policy adopted December 21, 1936, later modified and then on April 14, 1938, discontinued, of sterilizing newly received gold by paying for it with government debt and thereby preventing it from serving as a monetary base in expanding the

currency.¹ When such sterilized gold is exported, it obviously does not contract our monetary base by the amount exported.

The Silver Purchase Act of 1934

In any comprehensive discussion of the federal reserve system, even though it be elementary like the present one, it is impossible to ignore the Silver Purchase Act which received the approval of the President on June 19, 1934. This legislation followed the silver legislation contained in the Thomas amendment of 1933, the World Economic Conference silver agreement of July,² and the silver-buying program announced by the President on December 21. The Act declared it to be the policy of the United States to increase the proportion of silver to gold in its monetary stocks in order to achieve the ultimate objective of holding one dollar in silver for every three dollars of gold. Accordingly, the Secretary of the Treasury was authorized and directed to purchase silver, at home or abroad, at such rates and upon such terms as he considered reasonable and most advantageous to the public interest. The only limitations on this sweeping grant of authority were, first, that not more than the nominal monetary value of silver

¹ *cf. infra*, pp. 256-61

² See Kemmerer on Money, 2nd edition, Chap. VIII, "The Silver Purchase Plan," and Handy and Harman *Annual Review of the Silver Market*, *passim*

(approximately \$1 293 per fine ounce¹) could be paid for such purchases and, second, that no silver situated in the continental United States on May 1, 1934, could be purchased at a price in excess of 50 cents a fine ounce. In the event that the market price rose above the nominal monetary value of silver, and whenever the monetary value of the Treasury's stocks of silver exceeded 25 per cent of the value of its combined stocks of gold and silver, the Secretary of the Treasury was to sell any of the silver acquired under the authority of the Silver Purchase Act.

Further, the Secretary of the Treasury was authorized and directed to issue silver certificates to an amount at least equal in value to the cost of all silver purchased in pursuance of the terms of the Act. Standard silver dollars and silver bullion of a monetary value equal to the face amount of the outstanding silver certificates were to be held in the Treasury as a redemption fund, regardless of the fact that any appreciable demand for redemption of the certificates in silver would be highly improbable unless the market price of the metal should exceed \$1 293 per fine ounce. All silver certificates issued under the provisions of the Act, as well as those already in circulation, were de-

¹ This nominal monetary value of an ounce of silver is derived from the fact that the standard silver dollar contains 371 25 grains, or 77 3 per cent of an ounce, of fine silver so that an ounce will coin into \$1 293

clared to be legal tender for public and private debts.

Finally, it was provided that the President could nationalize all silver held in the United States if he believed such action necessary to carry out the policy expressed in the Silver Purchase Act. In return for the silver thus surrendered to the government, the holders thereof were to be paid its "fair value" as determined by the market price over a reasonable period of time.

The President promptly complied with the terms of this legislation and on August 9 issued an order requiring that practically all silver bullion situated in the United States on that date be delivered to the mints within 90 days. Payment at the rate of 50.01 cents an ounce was made to all those surrendering their silver.

On August 10, 1934, a total of \$80 million in silver certificates was issued against \$46,900,000 (cost value) of unused silver which had been in the possession of the Treasury prior to the enactment of the Silver Purchase Act. Subsequently, the Treasury announced that under the terms of existing law it was compelled to value at \$1.293 an ounce all silver serving as the reserve basis for the issuance of silver certificates, but that for the present such certificates would be put into circula-

tion only in an amount equal to the cost price of the silver bullion purchased.¹

On June 30, 1934, shortly after the passage of the Silver Purchase Act, total Treasury holdings of gold amounted to approximately \$7,856 million as compared with \$838 million of silver. It was estimated, therefore, that the purchase of approximately 1,380,000,000 ounces of silver would be necessary to meet the terms of the Act. The government's silver stock at the end of 1937 was approximately 2,176,900,000 ounces, the great bulk of which was purchased during the preceding four years. This stock is equivalent to approximately the entire world's production of silver for eight years at the 1937 rate and has a coinage value of approximately 2,800,000,000 silver dollars. "Based on year-end gold stocks of \$12,760,000,000, additional acquisitions of silver to the extent of about 1,113,000,000 ounces are still needed to fulfil the requirements of the Silver Purchase Act"² In spite of our enormous silver purchases, therefore, and largely by reason of our rapidly accumulating and to a substantial extent excessive gold reserves, the one-to-three ratio of silver to gold prescribed by the Silver Purchase Act as a goal of American monetary policy had been approached by less than 200,000,000 ounces in three and a half years.

¹ *Annual Report of the Secretary of the Treasury for 1935*, p. 262

² Handy and Harman, *22nd Annual Review of the Silver Market*, p. 19

For our purposes it is not necessary to go into the economics of the Silver Purchase Act, but merely to indicate its bearing on the federal reserve system.

As we have seen, the Secretary of the Treasury is to issue silver certificates against the silver acquired under the terms of the Act. Between June 30, 1934, and June 30, 1938, the total of silver certificates in circulation was in this way increased from \$401 million to \$1,230 million. These silver certificates added to our circulation have taken the place of what would otherwise have been an approximately equivalent amount of additional federal reserve notes in circulation.

This substitution (for federal reserve notes) of silver certificates whose volume in circulation is controlled by the United States Treasury, has greatly impaired the power of the federal reserve authorities to regulate the nation's monetary supply. How can the federal reserve authorities be held responsible for providing the country with a sound and elastic currency, responsive to the changing demands of business, if the Treasury of the United States takes upon itself the direct control of such a large volume of our currency? This silver purchase program represents a distinct step backward from the goal that we set ourselves when the Federal Reserve Act was passed in 1913. Whereas it was the general purpose at that time to make the federal reserve system the sole authority

having the right of note issue, we have now given large additional note-issuing powers to the Treasury.¹ The result is divided responsibility and an impairment of federal reserve control over the currency.

Control of Credit Used for Speculative Purposes

As previously noted,² the federal reserve authorities were given extensive powers by the Banking Act of 1933 to control the use of member bank credit and to prevent an excessive amount of credit from going into speculative channels. The control thus given took several forms. First, the opportunity of a member bank to rediscount paper at the federal reserve banks was transformed from what was widely believed to be a right into a privilege which could be withdrawn from an offending member bank by the Federal Reserve Board.³ Secondly, upon the affirmative vote of not less than six of its members, the Board was empowered to fix the percentage of individual bank capital and surplus which might be represented by loans secured by stock or bond collateral. The percentage so fixed may vary as between different federal

¹ Under the terms of the Thomas amendment of May 12, 1933, the Secretary of the Treasury is also authorized to increase the volume of greenbacks outstanding up to a maximum of \$3,000 million. On June 30, 1938, the amount outside the Treasury and federal reserve banks was \$262 million.

² *Supra*, pp. 195-6.

³ Federal Reserve Act, section 4.

reserve districts and is subject to change from time to time on 10 days' notice. Thirdly, the Board has the authority to order any member bank to refrain for a period up to one year from increasing its loans collateralised by securities, under a penalty of a withdrawal of its rediscount privilege.¹ Finally, immediate repayment of a member bank's borrowings from its federal reserve bank can be demanded if the member bank, in defiance of an official warning, increases its outstanding loans secured by stock or bond collateral, or its loans to those engaged in the securities business for the purpose of purchasing and carrying stocks and bonds. Such a member bank also becomes ineligible to borrow again from the reserve bank in its district for whatever period the Board may determine.²

A considerable extension of these powers to control the use of credit, as well as its amount, was entrusted to the Board by the Securities Exchange Act of June 6, 1934, which brought the stock exchanges of the country under federal regulation. Among other things, this legislation provided that the Federal Reserve Board, in order to prevent the excessive use of credit for the purchase or carrying of securities, shall regulate the amount of credit that may be extended and maintained on any security (other than an exempted security) registered

¹ Federal Reserve Act, section 11m.

² Federal Reserve Act, section 13.

on a national securities exchange. As part of the technique of giving the Federal Reserve Board control of all credit extended on listed stocks and bonds, the Act provided that brokers and dealers subject to its terms may borrow on registered securities (other than exempted securities) only from members of the federal reserve system, or from non-member banks which have filed an agreement with the Federal Reserve Board to comply with all provisions of law relating to the use of credit to finance transactions in securities.

Acting under the authority thus given it, the Board has issued regulations from time to time limiting the amount of credit that can be advanced on registered securities by brokers and dealers who transact a business in securities, and also the loans by banks for the purpose of purchasing or carrying stocks registered on a national securities exchange.¹

Retirement of All National Bank Notes

An important step in the direction of a simplified currency system was taken when the Treasury redeemed the outstanding 2 per cent Consols of 1930

¹ Regulation T, which applies to members of a national securities exchange, brokers, and dealers, was issued on September 27, 1934, and became effective October 1, 1934. Regulation U, applying to banks, was issued March 25, 1936, and went into effect May 1, 1936. These two Series of Regulations as amended are given in *Digest of Rulings of the Federal Reserve System from 1914 to October 1, 1937*, pp. 278-98, and supplementary regulations as they are issued are published in the *Federal Reserve Bulletin*.

on July 1, 1935, and also the 2 per cent Panama Canal loans of 1916-36 and of 1918-38 a month later. The funds for the redemption of these bonds were taken out of the so-called devaluation profits realized by the government from its reduction in the weight of the gold dollar.¹ These issues of government bonds were the only ones carrying the permanent circulation privilege. They were outstanding in amounts of about \$600 million and \$75 million, respectively. Altogether \$521,112,330 of the three issues were on deposit with the Treasurer of the United States to secure the circulation of national bank notes issued against them. In addition, a total of \$136,824,750 of various issues of government bonds given the circulation privilege for a three-year period by the Federal Home Loan Bank Act of July 22, 1932, were similarly deposited with the Treasurer, and national bank notes were issued against them.² Since this temporary privilege expired on July 22, 1935, all national banks which had issued notes against such bonds were required to deposit lawful money by that date to retire the notes. With the redemption of the Consols and of the Panama Canal bonds, no United States government bonds bearing the circulation privilege remained outstanding and the national bank notes

¹ *Supra*, p. 215, also *Annual Report of Secretary of the Treasury for 1935*,

p. 23

² *Supra*, pp. 161-3

still in circulation were covered dollar for dollar by lawful money deposited with the Treasurer of the United States for their retirement. The notes are being withdrawn from circulation and retired as rapidly as they are presented to the Treasury. Between June 30, 1935, and August 31, 1938 the circulation of national bank notes had been reduced from \$704 million to \$211 million.

The retirement of the national bank notes, first issued in 1863, is rapidly removing one of the diverse elements in our confused currency system.¹ Such a step was contemplated at the time of the passage of the Federal Reserve Act in 1913, but was postponed. Other kinds of currency that are being retired as rapidly as possible include the "old" gold certificates, Treasury notes of 1890, and the federal reserve bank notes. When the removal of these various kinds of currency from circulation has been completed, the paper money in circulation will consist entirely of federal reserve notes, silver certificates, and United States notes or greenbacks. It would be sound monetary policy to retire from circulation also the silver certificates and the greenbacks, making the notes of our central banking institutions the only kind of paper money in circulation, as is the policy of most other advanced countries.

¹ A useful chronological record of the legislation from 1863 to 1935 affecting national bank notes is given in the *Annual Report of the Comptroller of the Currency for 1935*, pp. 834-42.

Federal Insurance of Bank Deposits

The Banking Act of 1933, as previously noted,¹ provided for the insurance of bank deposits in all federal reserve member banks, as well as in such non-member state banks as wished to participate in the plan and were able to present evidence establishing their solvency. The widespread popular demand for such insurance or guaranty arrangement was the natural outgrowth of the long period of heavy bank failures beginning in 1921, with their resulting large losses to many thousands of depositors who were not able to protect themselves.

According to the provisions of the Banking Act of 1933, a temporary deposit insurance plan was to be in effect from January 1, 1934, to July 1, 1934. On the latter date it was to be succeeded by a permanent plan administered by the Federal Deposit Insurance Corporation, which was created for the purpose. Participation in the temporary plan was required of all member banks licensed before January 1, 1934, by the Secretary of the Treasury and was open to all non-member banks which could obtain the approval of state authorities as to their solvency. Deposits in the participating banks were fully guaranteed up to \$2,500 in amount for each depositor. The guaranty fund was to be ac-

¹ *Supra*, p. 197

cumulated by assessments on all participating banks to the extent of one-half of one per cent of their insured deposits. Members of the temporary plan were liable to an additional levy of equal amount and no more. It was estimated that the guaranty of \$2,500 for any one depositor gave full protection to about 97 per cent, by number, of the deposits in all insured banks.

The permanent plan of deposit insurance provided for the establishment of the Federal Deposit Insurance Corporation which would insure the deposits of all participating banks and would purchase, hold, and liquidate the assets of closed national banks. Management of the Corporation was vested in a board of three directors consisting of the Comptroller of the Currency and two others to be appointed by the President. The Corporation was to have a subscribed capital of between \$450 million and \$500 million, of which approximately one-third would be paid in and the remainder would be subject to call at any time. The capital was to come from the following sources:

1. A subscription of \$150 million from the United States Treasury.

2. A subscription of approximately \$139 million by the federal reserve banks, which were to contribute one-half of their surplus as of January 1, 1933.

3. Subscriptions by all banks participating in the insurance plan to the extent of one-half of one per cent of their total deposits. It was expected that these subscriptions would total \$200 million if all banks, including mutual savings banks, joined the Corporation.

All national banks and state member banks were required to participate in the insurance fund. Non-member state banks were allowed to enjoy the advantages of participation until July 1, 1936. By the end of this two-year period, the non-member state banks were to qualify for membership in the reserve system or withdraw from the deposit guaranty fund.

The Federal Deposit Insurance Corporation was to guarantee repayment in full of all deposits up to \$10,000 in amount and a minimum of \$10,000 in larger deposits. In addition, 75 per cent of the amount of a deposit in excess of \$10,000, but not in excess of \$50,000, was guaranteed, as was 50 per cent of the balance of any deposit over \$50,000 in amount. If the assets of the Corporation were not adequate to meet all demands made upon it in fulfilling these guaranties, participating banks could be required to pay an unlimited number of additional assessments of one-fourth of one per cent of their total deposits.

The temporary insurance plan was put into effect as scheduled on January 1, 1934. It was widely be-

lieved that, under the circumstances, the protection the plan offered to bank depositors represented a laudable attempt to stabilize the banking situation, while the banks did not find the limited assessment of one-half of one per cent of their insurable deposits overly burdensome. However, opposition to the permanent plan which was to go into effect on July 1, was strong. Consequently, the life of the temporary plan was extended for an additional year by an amendment to the Federal Reserve Act approved June 16, 1934. This legislation also increased the amount to be insured for any one depositor from \$2,500 to \$5,000, except in the case of mutual savings banks, and provided a separate fund for these institutions. A year later the future of the permanent deposit insurance plan was still uncertain.

The Banking Act of 1935 was approved by the President on August 23 and became effective immediately. Title I of this legislation was concerned exclusively with deposit insurance¹ and introduced important changes in the existing law. First, it provided that the temporary insurance funds should be consolidated at once into a Permanent Insurance Fund and that the Federal Deposit Insurance Corporation should begin, as of August 23 the permanent insurance of bank deposits. Second it provided that the insured banks, instead of

¹ The other provisions of this Act are explained in Chap. XIII

subscribing to the stock of the Federal Deposit Insurance Corporation and of being liable to unlimited future levies, should pay an annual assessment of $1/12$ of one per cent of their total deposits. Third, the maximum amount of the insured deposit of any depositor was reduced to \$5,000. Fourth, the former provision that all banks participating in the insurance plan must become members of the federal reserve system by July 1, 1937 was greatly relaxed.¹ Membership in the system was now to be required only of the participating banks with average deposits of one million dollars or more in 1941 or any succeeding calendar year. Fifth, the Secretary of the Treasury was authorized to purchase any obligations of the Federal Deposit Insurance Corporation and for this purpose was permitted to use the proceeds of the sale of securities thereafter issued under the Second Liberty Bond Act as amended.

Pros and Cons of Deposit Insurance

Federal insurance of bank deposits has received widespread support within recent years largely as a result of the disastrous record of bank failures already discussed. Depositors in failing banks have been to a great extent unable to protect

¹ The Banking Act of 1933 set this date as July 1, 1936, but a subsequent amendment passed in 1934 extended the time limit for an additional year, i.e., until July 1, 1937

themselves. In many communities there has been only one bank, and in many others where more than one bank existed, there has been little to choose among them, because the stress of competition among an excessive number of banks established under our dual system of national and state banks has often, in our smaller communities, kept all the banks weak. Even when there has been a great difference in the strength of different banks in a community, the average depositor has not been in a position to make an intelligent choice among them.

There is the further important consideration that in the depression following the stock market crash of 1929, when the prices of goods and securities declined at a rapid rate, many banks which were conservatively managed according to the generally accepted standards of the time came to disaster through little or no fault of their own. It was to remedy these conditions that many persons turned to the insurance of bank deposits on a nationwide scale under the auspices of the federal government. They held that the mere knowledge that deposits up to a certain amount would be paid in full was likely to serve as a deterrent to the panicky conditions that so often induced bank failures by compelling a forced liquidation of assets. It was also their contention that a national plan of insurance would have the advantages of greater

size and of sectional and business diversification and in other respects be free from many of the weaknesses that had previously characterized the state guaranty plans, and led to their failure

On the other hand, it may be pointed out that there are certain obvious disadvantages in this federal insurance program. In the first place, many banks that were actually insolvent were allowed to reopen after the bank holiday of March 1933, and there was tremendous pressure upon the authorities to admit these banks to the temporary and permanent insurance funds. About 140 banks that were operating on an unrestricted basis were not allowed to have their deposits insured on January 1, 1934.

In the second place, this insurance¹ plan penalizes the strong banks by requiring of them the same contributions that it requires of the weak banks. If the deposits of most depositors are as safe in one bank as in another, by reason of the government guaranty, a continually increasing proportion of bank customers are likely to keep their deposits and do their banking business at those

¹ The term "insurance" is really a misnomer, for the law requires that the assessments on all participating banks shall be at the same rate. The essential characteristic of the insurance principle, on the other hand, is that the premium charged the insured bears a definite actuarial relation to the risk involved. The federal plan now in effect should more properly be termed the guaranty of deposits than the insurance of deposits. *Association of Reserve City Bankers, The Guaranty of Bank Deposits*, pp. 1, 27-8.

banks that are most "liberal" in their loan policies. This means competition among banks in slackness in the granting of loans. The bank with the loose credit policy gets the business and the bank with the careful, cautious credit policy loses it. The slack banker and his depositors profit at the expense of the conservative banker and the public.

In considering our long-run banking policy of the future, a possible alternative to such guaranties worthy of serious consideration would be the gradual replacement of our weak banks by strong banks with numerous branches under a unified national banking system. If such a banking system were an accomplished fact, as it is in most other advanced countries, the public would not be interested in a government guaranty of deposits.

CHAPTER XIII

THE BANKING ACT OF 1935 AND THE PROBLEM OF EXCESS RESERVES

THE Banking Act of 1935, approved by the President on August 23, was the sixth major revision of the Federal Reserve Act since it became law in 1913. The Act of 1935 represented an attempt to reformulate the legal basis of the federal reserve system in the light of recent experience, as well as to write into the permanent law as much of the temporary banking legislation growing out of the crisis of 1933 as seemed desirable.

The main provisions of the Banking Act of 1935 were the following:

Title I—Federal Deposit Insurance. Sweeping changes were made in the plan of deposit insurance enacted in 1933. It was provided that the temporary insurance funds should be consolidated immediately into the Permanent Insurance Fund and that the Federal Deposit Insurance Corporation should begin, as of August 23, 1935, the permanent insurance of bank deposits.

Title II—Amendments to the Federal Reserve Act.

1. The name of the Federal Reserve Board was changed to the Board of Governors of the Federal Reserve System. The ranking officer of the Board was henceforth to be known as the chairman and

was to be designated by the President for a term of four years. The number of members on the Board was reduced from eight to seven, and the Secretary of the Treasury and the Comptroller of the Currency were eliminated as ex-officio members. Members were to be appointed for a term of fourteen years (as contrasted with twelve years previously) by the President with the advice and consent of the Senate. Not more than one member could come from any one federal reserve district, and in appointing the members, the President must have due regard to fair representation of the financial, agricultural, industrial, and commercial interests, and of the different geographical divisions of the country. No member who has served his full term of fourteen years shall be eligible for reappointment to the Board. The Board of Governors was to assume office February 1, 1936

Similarly, changes were made in the organization of the federal reserve banks. The executive officer in each bank, effective March 1, 1936, was to be known as the president rather than the governor. He was to be appointed by the board of directors of the bank, with the approval of the Board of Governors of the Federal Reserve System, for a term of five years. All other officers and employees of the bank were made responsible to the president.

2. Greatly increased powers of credit control were lodged in the hands of a newly-created Federal Open Market Committee consisting of the seven members of the Board of Governors and of five representatives of the federal reserve banks. One representative on this Committee was to be elected annually by the Boston and New York banks, one by the Philadelphia and Cleveland banks, one by the Chicago and St. Louis banks, one by the Richmond, Atlanta, and Dallas banks, and one by the Minneapolis, Kansas City, and San Francisco banks. A compromise on determination of open-market policy was thus reached between those advocating complete centralization of control in Washington and the group in favor of control by the representatives of the twelve federal reserve banks without interference by the Board.

The Federal Open Market Committee must meet in Washington at least four times a year upon the call of the chairman of the Board of Governors or at the request of any three members of the Committee. Its function is to consider, adopt, and transmit to the several federal reserve banks regulations relating to the open-market operations of those banks. Such regulations are fully binding on all federal reserve banks, which are now prohibited from engaging in, or refusing to engage in, open-market operations except in accordance with the direction of and the regulations adopted by the

Committee. The provision written into the Federal Reserve Act in 1933 that all open-market operations are to be governed "with a view to accommodating commerce and business and with regard to their bearing upon the general credit situation of the country" was continued in effect. It was further stipulated that purchases or sales of government securities could be made only in the open market. This clause evidently repealed that part of the Thomas amendment authorizing the President to direct the Secretary of the Treasury to enter into agreement with the federal reserve banks to purchase \$3,000 million in United States obligations directly from the Treasury.

The Board of Governors is required to keep a complete record of the action taken by the Board and by the Federal Open Market Committee upon all questions of policy. This record is to include the votes taken in connection with the determination of open-market and other policies and the reasons for the action of the Board and the Committee in each instance. This information must be included in the annual report made by the Board to Congress.

The character of the Federal Open Market Committee and its functions were thus greatly altered, as compared with what they were under the provisions of the Banking Act of 1933.¹ This earlier

¹ *Supra*, pp. 200-1

legislation established the Committee, composed of one representative from each federal reserve bank, as an advisory body which would make recommendations to the Federal Reserve Board in respect of open-market operations. Individual reserve banks were allowed to refrain from participating in the operations recommended by the Committee and approved by the Board by filing written notice of their decision with the chairman of the Committee within thirty days, and transmitting a copy thereof to the Board. Complete authority to carry into effect a specific credit policy was therefore lacking until the 1935 Act was passed.

3. The Board of Governors was authorized to alter member bank reserve requirements against time and demand deposits in order to prevent injurious credit expansion or contraction. Two limitations not included in the original bill passed by the House were nevertheless placed on this grant of power. These were: first, that required reserves could not be reduced below the legal level at which they stood when the Act was passed and, second, that they could not be raised to more than twice that level. It was doubtless expected that this authority would give the Board an instrument which it could easily and effectively use to eliminate a large part of the \$2,700 million of excess reserves then in existence, an amount over four times as large as they had been only two years before.

These provisions of the Banking Act of 1935 represented an extension, as well as a refinement, of the power to alter reserve requirements incorporated in the Thomas amendment. Under the earlier legislation it was possible for the Federal Reserve Board, upon affirmative vote of five of its members and with the approval of the President, to declare that an emergency existed by reason of credit expansion and to raise or lower member bank reserve requirements without limit during the period of the emergency.

Even in the present restricted form this control of reserve requirements is a powerful instrument of credit policy in the hands of the Board. No one doubted its potency, but there was some question whether it was advisable to introduce such an element of uncertainty into the credit structure. It was argued by some that sharp or sudden increases in reserve requirements could easily provoke a credit panic and result in extremely extensive liquidations of bank credit. Further, it was claimed that the reserve positions of no two banks were the same and that a uniform increase in reserve requirements would affect different banks very unevenly. For banks with no more than the legally required reserve balances before the new requirements went into effect the consequences might be serious.

An alternative to control over reserve requirements by the Board of Governors was the plan recommended by the Committee on Bank Reserves of the Federal Reserve Board in 1931.¹ This Committee, after detailed study of the problem, proposed that the distinction between demand and time deposits be abolished and that all deposits be treated alike for reserve purposes. The required reserve to be maintained with the federal reserve banks was then to be (a) 5 per cent of the bank's total net deposits (this 5 per cent to include vault cash as well as deposits in the federal reserve bank) plus (b) 50 per cent of the average daily withdrawals actually made from all its deposit accounts.

Among the virtues claimed for this plan was its greater simplicity than the existing arrangement and that it would automatically tend to check dangerously rapid credit expansion and excessive speculation which are usually effected largely through increased velocities. On the other hand, it was claimed that credit expansion in periods of depression and low velocities would be automatically stimulated by the reduction of reserve requirements at these times. Against the plan it was argued that dangerous expansion would not be effectively restrained until too late, and the difficulties of a financial panic when velocities are ex-

¹ *Report of the Committee on Bank Reserves of the Federal Reserve System*, Washington, D C., 1931.

ceptionally high would be increased.¹ Under this plan it should be noted that reserve requirements in 1936-37 would have been kept very low contemporaneously with the low velocities of that time, despite the threat of inflation during much of the time which actually induced the federal reserve authorities for a period to increase reserve requirements to double the statutory minimum.

Proposals for this new type of reserve requirement were tentatively considered in connection with several recent banking bills, but were abandoned in favor of the discretionary power put into the hands of the Board of Governors by the Act of 1935

4. Basic changes were introduced in the Federal Reserve Act allowing the reserve banks, under rules and regulations prescribed by the Board of Governors, to make advances to member banks on their time and demand notes secured to the satisfaction of the federal reserve bank. Such loans must have a maturity of not more than four months and are to bear a rate of interest at least one-half of one per cent higher than the highest prevailing discount rate of the reserve bank extending the accommodation. This amendment was in some respects a continuation of one of the emergency provisions of the

¹ For a criticism of this plan see Anderson, B. M., Jr., *Proposed Banking Legislation: The Glass Bill and the Federal Reserve Proposal to Base Member Bank Reserves upon "Velocity" of Deposits* (Chase Economic Bulletin, April 1932)

Glass-Steagall Act of 1932 which had lapsed March 3, 1935, but the important requirement in the earlier Act that member banks must have exhausted their supply of eligible paper before obtaining such loans was omitted in the 1935 law, and the penalty rate of discount was reduced from one per cent to one-half of one per cent.

Commenting on the reasons for this change the *Federal Reserve Bulletin* said ¹

"The broadened provision for borrowing at the Reserve banks is also a recognition of the fact that the scope of operations of member banks has changed. Since the passage of the Federal Reserve Act paper that qualified under the eligibility requirements of that act has constituted a decreasing proportion of the loans and investments of member banks. As late as 1929 such paper comprised 12 per cent of the total and it now represents 8 per cent. Changes in business practices, which have resulted in a decline in the extent of commercial and industrial borrowing from banks, have been partly responsible for this development. Another major factor has been the increase in the amount of savings deposited in member banks. With member banks holding \$10,000,000,000 of savings and other time deposits, as

¹ *Federal Reserve Bulletin*, September 1935, pp 560-1.

compared with about \$1,000,000,000 in 1914, they are in the position where both in their own interest and in that of the country they must make a considerably larger volume of long-time investments. Such investment is an essential part of the economic process of capital formation. It seems reasonable, therefore, that these assets be given a status which will permit member banks to borrow on them from the Reserve banks when the need arises."

Whatever may be the merits or demerits of this very liberal credit policy it is certainly a great departure from the philosophy of self-liquidating credit on which the federal reserve system was founded a quarter of a century ago. Then the definition of what was eligible paper for rediscount purposes was rigidly circumscribed to include only "notes, drafts, and bills of exchange of short maturities issued or drawn for agricultural, industrial, or commercial purposes." Paper used for capital expenditures or to facilitate carrying or trading in stocks or bonds, except bonds of the United States government, was specifically excluded

With these previous restrictions removed, it will now be possible for the reserve banks to make advances, indirectly, on stocks, bonds, and real estate. While a case can be made for granting such wide latitude in the matter of loan policies during

an emergency, the possibility of unwise lending and consequent abuse must also be considered. The criterion of individual judgment on each federal reserve bank loan has now been substituted for the older, impersonal rules of action. Whether this marked change will prove desirable must depend in large measure on the personnel in charge of the federal reserve system and the freedom with which they are allowed to operate.

5. The Board of Governors was given increased control over the discount rates of the federal reserve banks by adding to the law the requirement that such rates must be established every fourteen days, or oftener if deemed necessary by the Board. Since the power of review and determination of discount rates continues to be held by the Board, it is now possible for the central authority, because of the frequent opportunities to pass judgment on it, to have a much more direct influence in establishing a rate.

6. In order to facilitate the admission of banks required to become members of the federal reserve system on or after July 1, 1942, if they are to continue their participation in the Federal Deposit Insurance Corporation, the Board of Governors was authorized to waive in whole or in part the requirements relating to the admission of such banks to membership. The only limitation was that if such a bank gains admission to the federal reserve

system with a capital less than that required for the organization of a national bank in the same place, and its capital and surplus are not adequate as compared with its liabilities, the Board of Governors may require the bank in question to increase its capital and surplus to such amount as the Board may deem necessary, but not to an amount in excess of that required for the organization of a national bank in the same place.

7. The restrictions on real estate loans were relaxed in certain particulars so that it is now possible for national banks to make loans secured by first liens upon improved real estate, including improved farm land and business and residential properties, regardless of their location. The amount of any such loan made after August 23, 1935, may not exceed 50 per cent of the appraised value of the real estate offered as security, and the loan cannot have a maturity of more than five years. It is provided, however, that the amount of the loan may be increased to 60 per cent of the appraised value of the property and its maturity increased to ten years if the loan is secured by an amortized mortgage or deed of trust under the terms of which the installment payments are sufficient to amortize at least 40 per cent of the principal of the loan within ten years. The real estate loans made by a national bank must not exceed, in total amount, its combined capital and surplus, or 60 per cent of its

time and savings deposits combined, whichever is greater.

These provisions represent a substantial relaxing of the former restrictions, which were sufficiently lax to result in numerous difficulties for national banks that took full advantage of them. The wisdom of encouraging additional real estate loans on the part of commercial banks with a large part of their liabilities in the form of demand deposits is open to serious question. To the extent that member banks borrow on such loans at the federal reserve banks under the new provisions of the Banking Act of 1935, the assets of the reserve banks will become immobilized in long-term, illiquid commitments.

8. Finally, it should be pointed out that the sections in the House bill making federal reserve notes a simple asset currency met with such general opposition that they were eliminated in the final draft of the bill which became law. No change, therefore, was made in the character of the notes, which must still be secured by a pledge of 100 per cent eligible collateral, as well as by a minimum gold certificate reserve of 40 per cent, which may be counted as part of the collateral required. The provision of the Glass-Steagall Act allowing United States government obligations to be used as collateral security for federal reserve notes as an

emergency measure has since been extended, with minor modifications, to June 30, 1939.

Title III—Technical Amendments to the Banking Laws. The other parts of the Act consisted of minor amendments to the national banking laws, which were incorporated in Title III. As previously noted, there was general agreement as to the advisability of most of these amendments.

The Problem of Excess Reserves

During recent years the federal reserve authorities have been confronted with the serious problem of what should be done about the huge volume of excess reserves deposited with the federal reserve banks by the member banks. The rapid rate at which these reserves have accumulated since 1932 is indicated in Chart XIV. Two causes have been largely responsible for this unprecedented growth in the volume of member bank reserves. Of these, mention should first be made of the open-market operations of the federal reserve banks effected with the purpose of expanding the basis of bank credit—operations which substantially increased federal reserve bank holdings of government securities during the early years of the depression.¹ These holdings of government securities increased, with occasional interruptions, from about \$511 million at the end of 1929 to \$740 million at the end

¹ cf Chart XII, *supra*, p 146

RESERVE BALANCES OF MEMBER BANKS

(AVERAGES OF DAILY FIGURES)

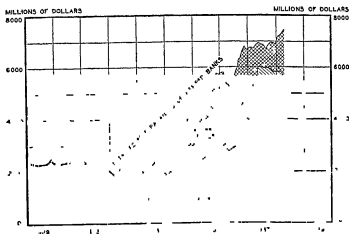


CHART XIV

of February 1932. The passage of the Glass-Steagall Act at that time allowed the federal reserve banks to increase their purchases of government securities very greatly. Accordingly, purchases of over \$1,000 million were made during the remainder of 1932 in an endeavor to stem the tide of liquidation and another \$600 million were added to the system's portfolio in 1933. Since that time no important changes have been made in federal reserve holdings, which have remained in the neighborhood of two and a half billion dollars. The net increase in such holdings between 1929 and 1934

came to nearly \$2,000 million. The funds paid for these government securities found their way into the hands of the member banks, which used the first proceeds to pay their indebtedness to the federal reserve banks. They then allowed the remainder to accumulate to their account in the form of excess reserve balances when they considered it impossible to use them in making safe loans and investments.

In the second place, the reduction in the gold content of the dollar in January 1934, increased the country's monetary gold stock by 69 per cent and started an unprecedented gold flow to the United States. Between February 1, 1934, and July 1, 1936, two weeks before the announcement by the Board of Governors of its 50 per cent increase in reserve requirements for member banks, our monetary gold stock increased by about \$3,594 million largely as a result of gold imports. This sharp increase is indicated in Chart VI. The gold coming to this country was almost entirely for private account. Individuals or groups of individuals would ship gold to a bank in the United States and receive a deposit credit for the dollar value of the shipment. The gold, in turn, would be handed over to the Treasury, and the member bank would receive a check on its federal reserve bank for the monetary value of the gold so handed over. Thus, the gold imports of this period, coming at a time

when the member banks were almost entirely out of debt to the reserve banks, had the effect of swelling ever higher the total excess reserves of the member banks. By July 1936, therefore, total member bank reserve balances held with the federal reserve banks amounted to \$5,900 million, while the reserves legally required of such member banks, on the basis of their demand and time deposits, came to only \$2,900 million. In other words, the amount of excess reserves was \$3,000 million or about 103.4 per cent of the total of required reserves.¹ Such a situation was unprecedented and as recently as five years before would have been considered impossible.

Why did these three billion dollars of excess reserves loom so large in the discussions of the federal reserve system? The answer to this question lay in the great powers of credit expansion that were inherent in these reserves. The average reserve required against demand deposits in the United States throughout most of the life of the federal reserve system prior to the late summer of 1936 was approximately 10 per cent. This means that for the country as a whole demand deposits could legally be expanded by the member banks to the extent of ten times the amount of their reserves held with the federal reserve banks. Therefore, if various more or less minor qualifications are

¹ cf. *Federal Reserve Bulletin*, 1936, p. 613

omitted for the sake of the clarity of the argument, the member banks of the United States in July 1936, for example, were legally in position to increase their demand deposits by approximately \$30,000 million on the basis of the excess reserves then available. The magnitude of this possible increase and of its potential inflationary effect on prices is indicated by the fact that total adjusted demand deposits of member banks which amounted to \$20,284 million at the end of June 1936, were at that time \$3,637 million greater than at the end of 1929. Furthermore, as Dr. B. M. Anderson, Jr., has pointed out, the great inflation of security and real estate prices during the 'twenties resulted from an increase of only about \$13,500 million in the time and demand deposits of our banks.¹

In the face of these serious dangers of inflation, various proposals had been made from time to time to eliminate at least a part of the excess reserves. One of the most frequent suggestions was that the Board of Governors should use the powers given it by the Banking Act of 1935 to raise member bank reserve requirements substantially above the levels then prevailing. Those advocating this course of action held that such an increase would reduce excess reserves and lessen the danger of inflation.

¹ Anderson, B. M., Jr., *The Gold Standard and the Administration's General Economic Program*, p. 5 (*Chase Economic Bulletin*, May 6, 1933).

On the other hand, objections were raised to this proposal. It was pointed out by Mr S. Parker Gilbert, former Under Secretary of the Treasury, that a large part of the excess reserves consisted of gold sent to the United States for safety in the face of the troubled European situation.¹ Any move to incorporate the proceeds of such gold shipments as an integral part of our reserve base, he maintained, would be unwise because a revival of confidence in Europe would result in a huge repatriation of funds and would thereby necessitate a large measure of deflation in the United States.

Also, frequent changes in reserve requirements, it was argued, must be avoided in the interests of banking stability, for otherwise a new element of uncertainty would be brought into the credit situation that might result in periods of sharp liquidation and deflation from time to time if unexpected increases in requirements should be made. Finally, although the banks of the country as a whole had reserves over 103 per cent in excess of what they legally needed in early July 1936, these reserves were unevenly divided among individual banks, and many banks had scarcely any excess reserves. A general increase in reserve requirements would thus affect a large number of banks adversely.

Another method of handling the problem that enlisted widespread support was to have the federal

¹ Letter to the *New York Times*, December 18, 1935.

reserve banks sell a considerable part of their large holdings of United States government securities.¹ Such securities would presumably have been purchased by the commercial banks of the country, which would have paid for them with part of their excess balances with the federal reserve banks. It should be noted, however, that considerable opposition also developed to this plan. The fear was that such open-market operations would result in declining prices for government securities and higher interest rates on the federal debt—both long- and short-term—as well as in a reversal of the easy money policy that was held by some to be primarily responsible for the degree of recovery already achieved. Finally, it was claimed that sales of government securities by federal reserve banks should not be undertaken at a time when the government was incurring a huge deficit year after year and was confronted with the need of financing these deficits by new issues of treasury bills and notes, and, occasionally, long-term bonds.

The final outcome of the discussion was that the advocates of increasing member bank reserve requirements won, and beginning August 15, 1936,

¹ See on this subject the recommendations of the Federal Advisory Council to the Board of Governors of the Federal Reserve System, November 21, 1935, *Federal Reserve Bulletin*, January 1936, pp 5-6, also Riddle, J H, *The Problem of Excess Reserves*, p 6 (Bulletin No 5 of the Association of Reserve City Bankers).

the administrative changes in reserve requirements previously described¹ were effected.

Another important device for checking threatened inflation was the so-called sterilization of gold, which has been previously mentioned.² This is essentially a government Treasury monetary device rather than a policy of the federal reserve system. A detailed discussion of it, therefore, falls outside the scope of this book.

It has been noted that the principal element in our currency expansion during recent years has been the enormous increase in our supply of monetary gold, an increase caused chiefly by heavy imports of gold from abroad, imports which in turn have originated largely from a spectacular increase in the world's gold production, and a flight of capital to the United States from war-scared Europe.

In the ordinary course of events, newly imported gold under the Gold Reserve Act of 1934 would first appear as a deposit in a member bank from which it would be transferred to a federal reserve bank and by the federal reserve banks be exchanged with the government for our new type of gold certificates. These certificates would be basic reserve money when owned by a federal reserve

¹ *Supra*, p. 45

² *Supra*, pp. 216-8

bank, and upon them many times their volume of bank deposit credit could be built up.

The government's gold-sterilization plan, announced by the Secretary of the Treasury December 21, 1936, was a plan to prevent such newly acquired gold from functioning as basic reserve money. The announcement said that the Treasury "proposes whenever it is deemed advisable and in the public interest to do so, to take appropriate action with respect to net additional acquisitions or releases of gold by the Treasury Department. This will be accomplished by the sale of additional public-debt obligations, the proceeds of which will be used for the purchase of gold, and by the purchase or redemption of outstanding obligations in the case of movements in the reverse direction."

Without going into the various steps in the procedure adopted, we may say that in its essentials the plan amounted to permitting new gold received by a bank to increase the bank's deposits by the amount received but compelling the gold to be swapped with the Treasury Department for its equivalent in interest-bearing government debt. Such gold, therefore, did not as previously become basic reserve money in the form of gold certificates owned by the federal reserve banks. Newly acquired gold of this type, in other words, increased

our bank deposits but did not increase our basic bank reserves

This gold-sterilization plan was a departure from the essentials of a true gold standard under which the monetary unit must be always maintained at the value of a fixed quantity of gold in a free gold market.¹ Fundamental requirements of a real gold standard are that when gold is imported because it is worth more here than abroad it shall flow into the monetary reserves (or into the active circulation) of the country and thereby tend to expand the circulation and make the monetary unit cheaper, and, on the other hand, that when gold is exported, because it is worth more abroad than it is at home, it shall be taken out of the monetary reserves (or the active circulation) thereby tending to contract the circulation and make the monetary unit dearer. This is the principal mechanism by which the value of the dollar is automatically kept at parity with the value of its gold bullion equivalent in the free gold markets of the world and with other gold standard monetary units. The gold-sterilization policy was obviously in direct conflict with these essentials of the gold standard. Under it newly imported gold could not expand the currency base (or the money in circulation) and thereby tend to make the dollar cheaper and to check the gold inflow. Nor could the exportation of gold

¹ cf. *Kemmerer on Money*, 2nd edition, pp. 1-5, and *supra*, pp. 216-8

contract the currency base (or the money in circulation) and thereby tend to make the dollar dearer and to check the gold outflow. By sterilization these equilibrium-restoring forces were largely nullified. So far as what happened in the United States was concerned, there was nothing whatever to check an unlimited importation of gold, which was to be buried in the ground at Fort Knox, Kentucky, which was to perform no monetary function whatsoever, and which was to be paid for by increasing the nation's interest-bearing public debt.

To create and maintain artificially a low-pressure area in this country to which unneeded gold tended to flow in large quantities from countries that needed it more, and to incur heavy debts for the purchase of this gold at a time of long-continued large government deficits, represented, in my judgment, unsound monetary policy. Gold sterilization is not a desirable instrument of monetary management.¹

¹ In a public statement made by the author on February 14, 1938, condemning gold-sterilization as an instrument of monetary policy, the following comment was made on the proposal to release at once all sterilized gold:

"On the other hand, to release at once this large quantity of sterilized gold, would be a dangerous inflationary measure. To make its release, however, a matter of governmental currency management in which the amounts released and the times of release would be left entirely to governmental authorities, would create a situation of great uncertainty and increase the size of the inflationary sword of Damocles that has long been hanging over the market. Currency management is desirable to a con-

The declining commodity and security prices which characterized the economic recession or "relapse" beginning the latter part of 1937 led to much public criticism of the gold-sterilization policy, chiefly on the ground that it was a force operating in favor of deflation at a time when prices were actually falling at an alarming rate. The government accordingly practically discontinued sterilizing further acquisitions of new gold. In September 1937, the Treasury released \$300 million of sterilized gold, and on February 14, 1938, the Secretary of the Treasury announced that for the present additions to the gold stock up to \$100 million in any one quarter of the year would not be placed in the inactive gold account.

Two months later, the government, in connection with the vigorous renewal of pump-priming policies, inaugurated, as a means of fighting the economic depression, the policy of gold-*de*sterilization. On April 14 the Treasury transferred to the gold certificate fund of the federal reserve system \$1,183 million of gold from its inactive gold account and \$209 million of gold held in its working balance, and thereby increased its balance with

siderable extent but, in my judgment, it should not take this form. This means that I would discontinue at once the government's policy of sterilizing further gold imports and would announce a policy of slowly *de*sterilizing, according to a fixed schedule made public in advance, the gold now sterilized."

the federal reserve banks to \$1,500 million.¹ Since that time the general account of the United States Treasury with the federal reserve banks has decreased weekly with very few exceptions. On August 24, 1938 the account amounted to \$771 million.

In summary, it may be pointed out that the present volume of excess reserves, together with the government's continuing deficits, offer the background for an ultimate heavy expansion of deposit currency and a marked inflationary rise in prices. Although price trends for about a year beginning with the summer of 1937 have been strongly downward, largely under the pressure of political forces, the fundamental economic forces point in the other direction for long-run trends. For the time being this advance is held back by a low state of business confidence with a small resulting demand for credit on the part of sound borrowers and a virtual stagnation of the capital market so far as new issues of industrial, railroad, and public utility securities are concerned.

¹ *Federal Reserve Bulletin*, May 1938, pp. 343-4

CHAPTER XIV

THE PRESENT STATUS OF THE FEDERAL RESERVE SYSTEM

THE far-reaching effects of the Glass-Steagall Act, the Gold Reserve Act, the Silver Purchase Act, the Banking Act of 1935 and the other recent legislation on the federal reserve system cannot yet be foretold with any substantial degree of accuracy. It is certain, however, that the effectiveness of the system's control over the credit structure of the nation has been seriously impaired. This is evident when we consider the principal functions of a central bank, or a group of federated central banks like our federal reserve system, and observe the respects in which these functions have been affected.

The five principal functions of a central bank are briefly as follows. (1) To provide the country with a sound and elastic bank-note currency, one that will expand as trade demands increase and contract as they decrease. (2) To provide the commercial banks of the country with funds if and as needed to meet emergency demands for currency and credit and the regularly recurring seasonal demands. (3) To hold and operate the country's gold reserves. (4) To regulate and maintain the orderly functioning of the nation's money market,

at one time preventing dangerous credit expansion, and at another time preventing harmful contraction, and at all times exerting a regulating influence on the importation and exportation of gold. For thus protecting and regulating the nation's money and its money market, a central bank usually has as its principal instruments the exclusive right of note issue, the right to raise or lower official discount rates, and the right to buy and sell certain types of commercial paper and securities in the open market. Through these instrumentalities the central bank is able to regulate the supply of money in circulation and the reserve balances of the member banks and thereby the supply of deposit currency. (5) To act as the depositary and fiscal agent of the government

The monetary legislation since the "bank holiday" of early 1933 has so weakened the powers of the federal reserve system in the fields in which a central bank usually operates, that it has been prevented from functioning in a normal and effective way. Its proper powers have been extensively taken over by the government, and it is no longer fair to hold the system responsible for performing the usual functions of a central bank.

The federal reserve system is hindered in providing the country with an elastic currency, for it is not the sole issuing authority and must share this function to an increasing extent with the govern-

ment itself which is purchasing large amounts of silver in accordance with the terms of the Silver Purchase Act of 1934 and issuing silver certificates against such purchases. If the full intent of this Act is followed out, one dollar of silver must be owned for every three dollars of gold in the government's vaults. The silver certificates issued against these tremendously wasteful silver purchases will add to the excess reserves of member banks and diminish the reserve banks' control over the currency. The extent to which the government resorts to the policy of sterilizing new gold,¹ and the operations of the Treasury's stabilization fund, directly affect the nation's monetary supply. Also, the authorization of the Thomas amendment for the Treasury to increase the circulation of greenbacks up to a maximum of \$3,000 million still remains in effect and may be used at any time.

The ownership of the nation's monetary gold has been transferred completely to the government. The federal reserve banks no longer hold any actual gold serving as the primary reserve for the outstanding money and deposit currency of the country. They cannot control the export or import of gold, nor can they obtain the redemption of a single dollar of the gold certificates they now hold, except at the option of the Secretary of the Treasury. And when redemption is obtained it may be

¹ *cf supra*, pp. 217-8.

effected only at such rates as the President may decide between the equivalent of 50 cents and 60 cents of our former gold dollar. While it is true that the Treasury has allowed gold exports on those rare occasions when the "59 cent gold dollar" has fallen to a discount against other gold currencies, there is a general fear that gold might not be allowed by the government to leave the country in volume at this gold value if a strong inflationary movement developed and there was a "flight from the dollar." Possessing no gold holdings of their own, the reserve banks would be powerless to meet such a situation effectively.

The power of the federal reserve system to control and protect the money market through changes in the discount rate and through open-market operations, for the present at least, is nearly gone. The market is so flooded with funds that member bank borrowing is an extreme rarity, and the operations of the reserve banks are being increasingly dictated by the fiscal needs of the government.¹

The member banks also have been investing increasing amounts of their assets in the direct and indirect obligations of the government. The strong

¹ For example, out of total bills and securities of \$2,587,356,000 owned by all twelve federal reserve banks on October 5, 1938, the amount of bills discounted came to only \$7,345,000, and of this sum \$3,897,000 were bills secured by United States government obligations, while bills bought in the open market amounted to only \$541,000. On the same date, however, total holdings of government securities were \$2,564,015,000.

tendency in this direction is shown in Chart XV. Whereas total holdings of United States obligations by the member banks amounted to only

U.S. GOVERNMENT SECURITIES HELD BY FEDERAL RESERVE AND MEMBER BANKS, 1928 TO 1938

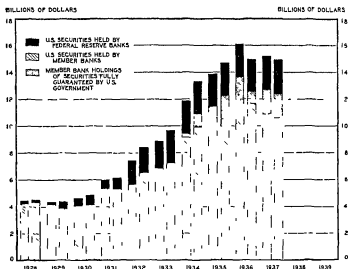


CHART XV

Data for member banks are for June and December call dates, those for federal reserve banks are for the end of the months nearest the same call dates

\$4,255 million in June 1928, this total had increased to the figure of \$12,343 million, including the fully guaranteed obligations of the government, by June 30, 1938

It is today difficult to reduce in any considerable measure the huge volume of excess reserves, for fear of injuring the market for government bonds and of interfering with the deficit financing of the Treasury. Consequently, if currency and credit redundancy should threaten to bring on a dangerous speculative market, the federal reserve banks would find it difficult to carry through effectively a restrictive policy by raising discount rates and selling government securities in the open market.

This possible conflict between Treasury policy and the proper and orderly functioning of the federal reserve system was strikingly brought out by Dr. A. C. Miller, who was formerly a member of the Federal Reserve Board, in his testimony with reference to the Banking Bill of 1935 before the Senate subcommittee. Dr. Miller on that occasion said in part:

"There is one further thing I want to call your attention to that I have not mentioned so far, and that is the new position that the United States Treasury has in recent years come to assume as a factor in the money market, and that is something beyond anything in extent that we have ever had before. I have just looked up to see what the powers of the Treasury are to increase or decrease member-bank reserves and deposits. . . . In the matter

of increasing reserves it has the power now to issue \$3,000,000,000 of greenbacks. And it has about \$1,800,000,000 of stabilization funds with reserve banks which it can use. . . .

"There would be two vast sources of inflation; and when you realize that things are moving in their ordinary way a dollar of reserve money multiplies itself to \$10, and you can see what the Treasury could do there, that the Board would be helpless to counteract unless it is given some authority; and I confess that I view the future in that respect with at least perplexity. And it can issue more silver certificates. That again has the same effect as an open-market operation. It could also further devalue the dollar and spend the profits. That again would be an open-market operation. In other words, they have the power to go into the open market to an extent that makes federal reserve banks seem like a toy pistol alongside the modern revolving six-shooter.

"The Treasury has the power, on the other hand, to decrease member banks' reserves. It can draw down its own balances at commercial banks and transfer the proceeds to reserve banks . . .

"So that you really have two colossal sources of banking power in the United States, one be-

ing the federal reserve system, and the other being the Treasury."¹

These statements accurately describe the present situation with reference to federal reserve control of the money market and the credit structure of the country. On the one hand, the powers of the Board of Governors over the banking system have been in a number of respects substantially increased as a result of recent legislation. The Board now enjoys virtual control over the twelve federal reserve banks. It determines the open-market policy of the system through the instrumentality of the new Open Market Committee. Even more important, it possesses the authority to alter at will member bank reserve requirements, fixing them at any point between the statutory minimum and a figure twice that minimum. Discount policy, finally, is more definitely entrusted to the Board than ever before.

On the other hand, the powers of the Board of Governors have been substantially limited by the growing importance of the central banking functions of the Treasury. Mention need only be made of the Treasury's \$1,800 million stabilization fund, which can be used for a variety of purposes, including the purchase and sale of government securities;

¹ Hearings on the Banking Act of 1935 before a Subcommittee of the Committee on Banking and Currency, United States Senate, 74th Congress, 1st session, pp 774-5.

the President's authority, under the Thomas amendment, to establish national or international bimetallism at any gold-silver ratio he may choose, the very large powers of silver-certificate issue exercised under the Silver Purchase Act of 1934, the right to issue up to \$3,000 million of greenbacks under the Thomas amendment; and the control of the nation's monetary gold stock, including the right to withhold licenses for gold exports at will. Further, the President retains authority to alter the gold value of the dollar at least until June 30, 1939. Finally, the continuing deficits of the federal government are a powerful inflationary force and are likely to weaken greatly the effectiveness of any efforts by the federal reserve authorities in the direction of credit control.

The future value and usefulness of the federal reserve system will depend in large measure upon the freedom with which it is allowed to operate and the restraint with which the Treasury uses the great monetary powers now lodged in its hands. If the Treasury gradually withdraws from the field of direct currency and credit control, the federal reserve system may well continue its evolutionary development and render even more valuable service to the nation in the future than it has in the past. If the Treasury continues to eclipse the fed-

eral reserve system, however, and uses its powers in behalf of unduly low interest rates and of excessive currency and credit expansion, the reserve authorities will be relatively helpless witnesses of the result.

APPENDIX A

*Combined Balance Sheet of the Twelve Federal Reserve Banks
as of June 1, 1938, and Brief Explanations of the Various
Items*

(In Thousands of Dollars)

ASSETS	
Gold certificates on hand and due from U.S. Treasury ¹	\$10,638,900
Redemption fund—F R notes ²	8,186
Other cash ³	389,350
<i>Total reserves</i>	<hr/> \$11,036,436
Bills discounted ⁴	
Secured by U.S. government obligations direct or fully guaranteed	\$ 5,479
Other bills discounted	2,935
<i>Total bills discounted</i>	<hr/> \$ 8,414
Bills bought in open market ⁵	\$ 534
Industrial advances ⁶	16,818
U S government securities ⁷	
Bonds	657,253
Treasury notes	1,191,905
Treasury bills	714,857
<i>Total U S government securities</i>	<hr/> \$ 2,564,015
<i>Total bills and securities</i>	<hr/> \$ 2,589,781
Due from foreign banks ⁸	\$ 186
F R notes of other banks ⁹	18,742
Uncollected items ¹⁰	582,086
Bank premises ¹¹	44,641
All other assets ¹²	48,070
TOTAL ASSETS	<hr/> \$14,319,942

LIABILITIES	
F R notes in actual circulation ¹³	\$ 4,157,156
Deposits	
Member bank—reserve account ¹⁴	7,744,949
U S Treasurer—general account ¹⁵	1,092,819
Foreign bank ¹⁶	130,200
Other deposits ¹⁷	262,794
<i>Total deposits</i>	<i>\$ 9,230,762</i>
Deferred availability items ¹⁸	\$ 578,995
Capital paid in ¹⁹	133,582
Surplus (Section 7) ²⁰	147,739
Surplus (Section 13b) ²¹	27,683
Reserve for contingencies ²²	32,880
All other liabilities ²³	11,145
TOTAL LIABILITIES	\$14,319,942
Ratio of total reserves to deposit and F R note liabilities combined ²⁴	82 4%
Contingent liability on bills purchased for foreign correspondents ²⁵	1,530
Commitments to make industrial advances ²⁶	13,140

¹ These are the new gold certificates given to the federal reserve banks in payment for their gold, which now belongs to the United States Treasury. These gold certificates are reserves of the federal reserve banks.

² This redemption fund consists of gold certificates deposited with the United States Treasury by the federal reserve banks for the redemption of their outstanding federal reserve notes. The amount of the fund cannot be less than 5 per cent of the federal reserve notes issued, less the gold certificates held as collateral security against them.

³ This consists of all money except gold certificates and federal reserve notes held by the federal reserve banks. See item 9.

⁴ This item represents advances made by federal reserve banks to member banks. It consists of short-term notes, drafts, bills of exchange, and bankers' acceptances which have been rediscounted for member banks, and collateral loans made to member banks against their notes secured by

eligible paper or by the direct obligations of the United States government, or by its fully-guaranteed obligations, or by the debentures or other obligations issued by a federal intermediate credit bank. The *Federal Reserve Bulletin* each month presents an analysis of the kind of paper held.

⁶ This item represents the bankers' acceptances which have been purchased by the federal reserve banks.

⁷ These industrial advances consist of intermediate-term loans made by the federal reserve banks to provide working capital for established commercial and industrial enterprises. (See note 26 below.)

⁸ This represents total federal reserve bank holdings of the direct and fully guaranteed obligations of the United States government. The open-market operations of the reserve banks consist largely of purchases and sales of these obligations.

⁹ These represent balances due from foreign banks, chiefly central banks, as a result of banking transactions conducted with them.

¹⁰ Every federal reserve bank receives notes of other federal reserve banks which it cannot put into circulation again and must return to the bank which originally issued them.

¹¹ These are items in process of collection, chiefly under the federal reserve clearing and collection system.

¹² The federal reserve banks and their branches are now housed in buildings owned by the banks, except for the branches in Cincinnati, Charlotte, Portland, Seattle, and Spokane. See *Annual Report of the Board of Governors of the Federal Reserve System for 1936*, p. 93.

¹³ The chief assets usually included in this item are reimbursable expenses, deferred charges, interest accrued, and the premium on securities held.

¹⁴ Federal reserve notes in circulation represent the difference between the total of notes issued by the federal reserve agents to the reserve banks and the volume of notes held by the reserve banks.

¹⁵ Member banks are required by law to keep their entire legal reserves on deposit in the federal reserve bank in their district. At the present time the volume of such member bank reserve balances amounts to far more than the legally required minimum. The amount by which actual reserves exceed required reserves is known as "excess reserves" and is a limiting factor with reference to the extent to which member bank credit can be expanded at any particular time.

¹⁶ The law authorizes the Secretary of the Treasury to use the federal reserve banks as depositories of public funds, except in the case of certain specified trust funds. The Secretary began depositing public funds in federal reserve banks as early as September 4, 1915, and since that time

has continually and extensively employed federal reserve banks as depositaries

¹⁵ Many foreign banks, in most cases central banks, maintain working balances with the federal reserve banks. A considerable part of these funds is held on deposit with the Federal Reserve Bank of New York.

¹⁷ This item covers deposit credits of certain clearing non-member banks in the United States, federal reserve bank officers' checks outstanding, and federal reserve exchange and transfer drafts.

¹⁸ These are liabilities of federal reserve banks to member banks and clearing non-member banks arising out of the federal reserve clearing and collection system. They represent items in process of collection, the proceeds of which are not yet available to be drawn upon by the creditor banks.

¹⁹ The law requires every member bank to subscribe to stock in the federal reserve bank of its district to the amount of 6 per cent of the member bank's paid-in capital and surplus. One-half of this subscription has already been called and paid, and the other half is subject to the call of the Board of Governors. This item in the balance sheet accordingly represents 3 per cent of the combined paid-in capital and surplus of all member banks.

²⁰ This is an earned surplus built up over a period of years by the federal reserve banks in accordance with the terms of the original Federal Reserve Act and the amendment thereto, of March 3, 1919. This amendment provided that after payment of a cumulative 6 per cent dividend on their stock the reserve banks should credit all their earnings to surplus until the surplus equalled 100 per cent of the subscribed capital. Thereafter, 10 per cent of such earnings after dividends was to accrue to surplus and the balance was to be paid to the government as a franchise tax.

The Banking Act of 1933 provided that the federal reserve banks should each subscribe one-half of their surplus as of January 1, 1933, to the stock of the Federal Deposit Insurance Corporation. The total amount thus paid was \$139,299,557. To make up for this very large decline in surplus, the reserve banks were thereafter allowed by law to credit all earnings in excess of dividend requirements to surplus account.

²¹ This item represents a special surplus which the reserve banks have been building up in accordance with the provisions of the amendment of June 19, 1934, to the Federal Reserve Act. This legislation authorized the federal reserve banks to make intermediate-term working capital loans to established industrial and commercial enterprises. So that such loans could be made with safety and without danger to the capital and surplus of the banks, the Secretary of the Treasury was permitted to pay to each of the reserve banks a sum equal in total amount to its subscription to the stock of the Federal Deposit Insurance Corporation. Funds for these payments, which the balance sheet indicates had already reached \$26,513,000 on May 30, 1936, were appropriated out of

the miscellaneous receipts accruing to the Treasury from the gold increment that resulted from the devaluation of the dollar

²² This is a reserve that has been built up over a period of years to take care of losses and unexpected charges of all kinds

²³ This represents several liabilities, the most important of which usually are accrued taxes, unearned discount, and net earnings

²⁴ The reserve ratio is computed by dividing total reserves consisting of gold certificates on hand and due from the United States Treasury, the gold certificates in the redemption fund, and all other cash by a sum consisting of all federal reserve note and deposit liabilities

²⁵ This represents the liability which federal reserve banks assume when they buy bills for the account of foreign central banks

²⁶ These are commitments which the federal reserve banks have assumed under the terms of the amendment of June 19, 1934, to the Federal Reserve Act. The reserve banks may make industrial advances themselves, participate with member or non-member banks in making them, or agree in advance to take over an industrial loan at the request of the lending bank, or banks, and assume up to 80 per cent of any ensuing loss.

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